



User Manual PagePro 4100E



MINOLTA
QMS

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1 Introduction

1.1 Welcome to Minolta/QMS

Thank you for purchasing a Minolta/QMS PagePro 4100E laser printer.

To achieve the best possible results and to use your laser printer effectively, this User's Manual provides you with information on the following topics:

- installing the printer driver,
- working with the printer drivers and tools,
- working with the printer,
- caring for and maintaining your printer,
- troubleshooting.

Read this User's Manual carefully before operating your printer for the first time, and always keep the manual within easy reach.

We reserve the right to make changes to the contents of this manual.

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1.2 Roadmap of this manual

Where to find what in this User's Manual

You don't know exactly where to find the information you need? The following table is designed to help you.

Alternatively, to find information on a specific problem quickly and precisely, please refer to the index at the end of the User's Manual.

No.	Title of chapter	Content of chapter
	Contents	A complete list of all the chapters and sub-chapters in this User's Manual.
1	Introduction	Introductory remarks and information on how to use this manual as well as notes on the safe use of the printer.
2	Unpacking, installing and setting up the printer	Information on how to set up the printer as well as an introduction to the various features.
3	Installing the printer driver	A step-by-step explanation of the routine for installing the printer driver.
4	Working with the Windows printer drivers	Details of how to control the printer via the printer driver. This helps you learn how to use the printer's functions effectively.
5	Working with the Windows printer tools	Details of how you can use the supplementary Windows programs most effectively.
6	Working with the DOS printer tools	Details of how you can use the supplementary DOS programs most effectively.
7	Working with the printer	Getting to know how your printer works. For example, information on: <ul style="list-style-type: none"> • loading paper • monitoring print jobs • cancelling print jobs
8	Installing optional accessories	Details of how to install optional accessories correctly, e.g.: <ul style="list-style-type: none"> • 500-sheet paper feed tray • network card
9	Caring for and maintaining your printer	Details of how to look after your printer and how you can easily replace certain parts yourself.
10	Troubleshooting	Help with analysing and rectifying faults.
11	Appendix	A collection of helpful additional information, e.g.: <ul style="list-style-type: none"> • technical specification • index of keywords

Brief explanation of special type styles and method of presentation

Special type styles and methods of presentation are used in this User's Manual to highlight various circumstances. The following examples will help you to recognize and deal with the most important of these.



CAUTION

This is a warning!

A warning alerts you to danger to life and limb or to damage that could result to the machine by treating it improperly.

- The arrow refers you to safety measures that must be taken to prevent the hazard.

[MENU] Key on the control panel / button on the printer driver with the description "Menu"

- Single action to be performed (there are no other steps)

1 Step 1 of a series of actions

2 Step 2 of a series of actions, etc.

? *Help is available here.*

- The approach that is suggested here is sure to get you to your desired result.

Here you can see what has to be done.



This is a helpful tip

Text passages that are identified in this manner provide you with tricks and handy tips to make it even easier to work with the printer.

1.3 Working safely with your laser printer

Notes on your safety and operating safety

Working improperly with the printer can result in health hazards, electric shocks and even fires. Before you unpack the laser printer, you should make yourself familiar with this information on your safety and operating safety.



CAUTION

Observe the following information:

- Make sure that the power cable is correctly plugged into the socket and that the socket is at all times visible and readily accessible.
- Do not pull the cable of the power plug as this may damage the cable. The result could be an electric shock or a fire.
- Remove the power plug from the socket if the machine will not be used for an extended period of time.
- Do not remove the power cable from the socket with wet hands as this may result in an electric shock.
- Do not move the unit unless the power cable has been removed from the socket. Otherwise you may damage the cable. The result could be a short-circuit or a fire.
- Do not place any heavy objects on the power cable. Do not pull or kink the cable as this can result in damage to the cable. The result could be an electric shock or a fire.
- Make sure that the machine is not standing on a cable connected to another machine as this can result in damage to that cable. The result could be a fire or improper functioning of the unit in question.
- Make sure that the power supply to the unit has the correct voltage. Otherwise the result could be a fire or an electric shock.
- Switch off the unit immediately and unplug the power cable if the power supply cable is damaged. Failure to do so could result in a fire or an electric shock. Contact your customer support service centre.
- Use only extension cables that are designed for at least the maximum power rating of the machine. Extension cables with lower ratings can result in overheating and can even cause a fire.

- Perform only the procedures that are described in this manual. Using the machine improperly can result in a fire or an electric shock.
 - Do not place any heavy objects on the machine.
 - Do not open any covers on the machine while printing is in progress.
 - Do not switch off the unit while printing is in progress.
 - Do not place any magnetic object near the machine.
 - Do not use any flammable sprays, liquids or gases in the vicinity of the machine.
 - Do not remove any safety devices and do not alter the construction of the machine. The unit is equipped with high-voltage components. Using the machine improperly can result in a fire or an electric shock.
 - Do not insert any paper clips, staples or other small metal objects into openings on the machine. The result could be an electric shock or a fire. If metal pieces are fed into the machine, switch it off immediately, disconnect the power cable and contact your customer support service centre.
 - Do not place coffee cups, drinks bottles or other containers with liquids in them on the machine. If liquid enters the machine the result could be an electric shock or a fire. If liquid does get into the machine, switch it off immediately, disconnect the power cable and contact your customer support service centre.
 - If the machine becomes unusually hot, or if you notice smoke or an unusual odour coming from the machine, switch it off immediately and remove the power cable from the socket. Contact your customer support technical specialist.
-

Laser safety

This printer is equipped with a laser unit. If the printer is used in accordance with the instructions in the User's Manual, the laser presents no danger.

The radiation emitted is completely absorbed and attenuated by the case. The laser radiation cannot escape at any time during the printing process.

This laser printer is categorized as a Class 1 printer. This classification means that the printer does not produce any hazardous laser radiation.

This printer is certified as a Class I Laser product under the US Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.

Internal laser radiation

Average radiation output:

1.03 mW at the laser aperture of the laser unit.

Wavelength: 770-810 nm

This device works with a laser diode of class 3b with invisible laser radiation. The laser diode and the polygon mirror for sampling are integrated into the laser unit.

The laser unit is NOT AN ITEM TO BE MAINTAINED ON SITE. You should therefore not open it under any circumstance.



CAUTION

Dangerous laser radiation!

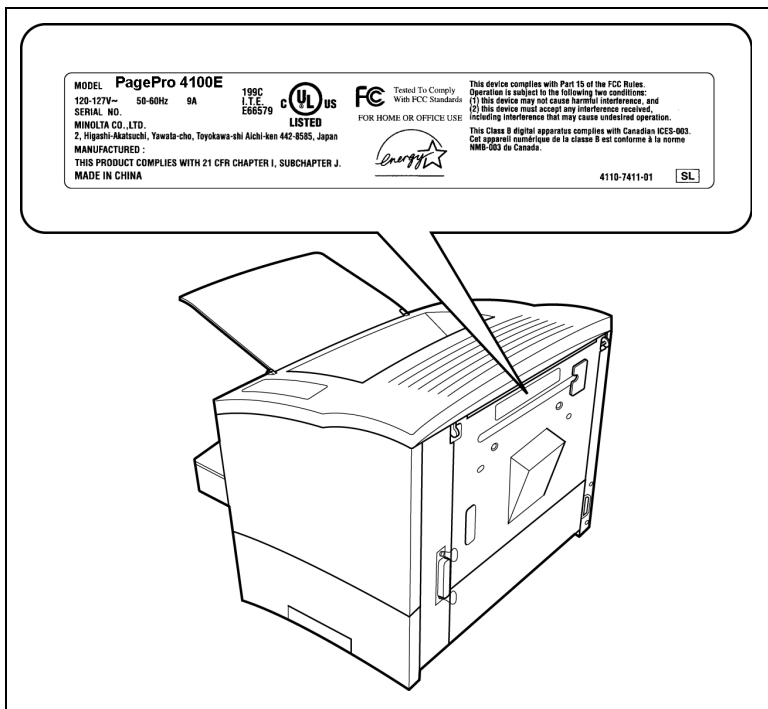
Using the printer in a manner other than as indicated in this manual may result in exposure to dangerous radiation.

→ Use the printer only according to the instructions contained in the User's Manual.

CDRH regulations

On 2 August 1976 the Center for Devices and Radiological Health (CDRH), part of the US Food and Drug Administration, introduced specifications for all products that operate with laser beams. Products which are to be sold or used in the USA must comply with these statutory requirements without exception. The safety label shown here confirms compliance with the CDRH regulations. This label must be attached to all products sold or used in the USA.

Laser safety label



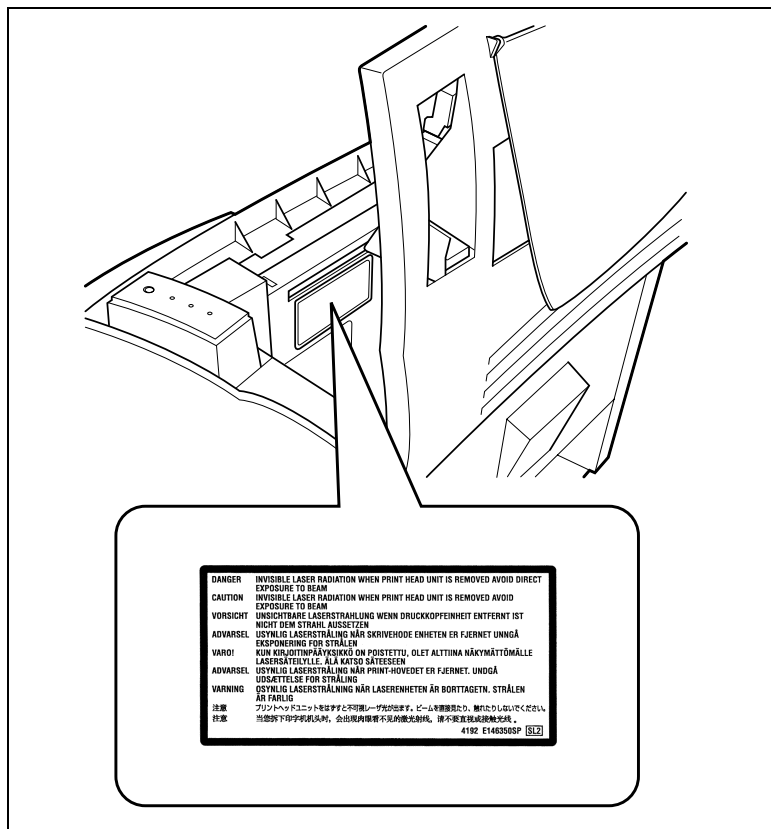
DANGER

Use the printer only as described in this manual!

Using the controls, adjusting the printer or performing procedures other than as specified in this manual may result in exposure to hazardous radiation.

- ➔ Use the printer only according to the instructions contained in the User's Manual.

Laser caution label



CAUTION

Dangerous laser radiation!

This is a semiconductor laser. The maximum power of the laser diode is 5 mW and the wavelength is 770–810 nm.

- Use the printer only according to the instructions contained in the User's Manual.

Ozone emission

Small quantities of ozone escape during the printing process. These quantities do not represent a health hazard. In spite of this, you should take care that the area in which the machine is located has adequate ventilation, especially if you are printing large quantities of materials or if the machine is being used continuously over a long period of time.

2 Unpacking, installing and setting up the printer

2.1 Unpacking the laser printer



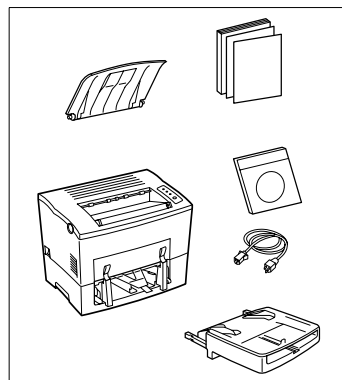
CAUTION

Danger to children from packaging materials made of plastic

→ After unpacking, keep the packaging materials out of reach of children.

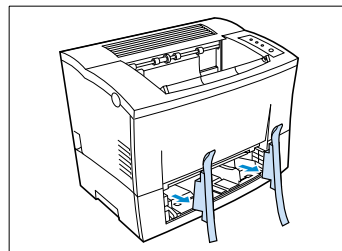
- 1 Remove the printer parts and accessories from the box.

- Paper output tray
- Printer
- Installation Guide
- CD-ROM
- Power cable
- Paper feed tray.

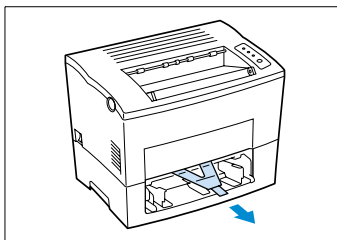


- 2 Remove the packaging material from the printer.

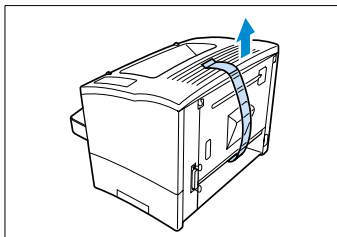
- 3 Remove the transport retainers from the printer.



- 4 Pull the plastic strips out of the printer.



- 5 Remove the plastic strips from the rear of the printer.

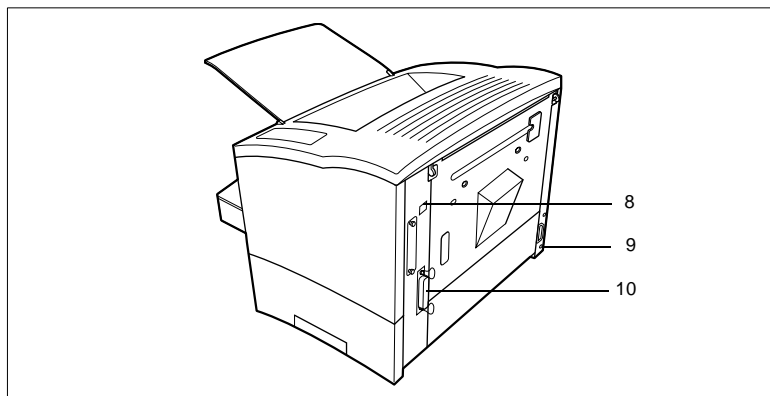
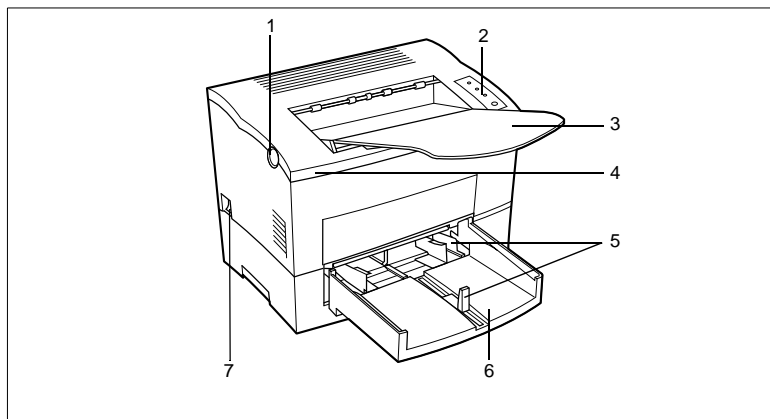


Why save packaging materials?

If you need to move the printer, you can use the packaging again. In this way you can be certain that your printer is correctly packed.

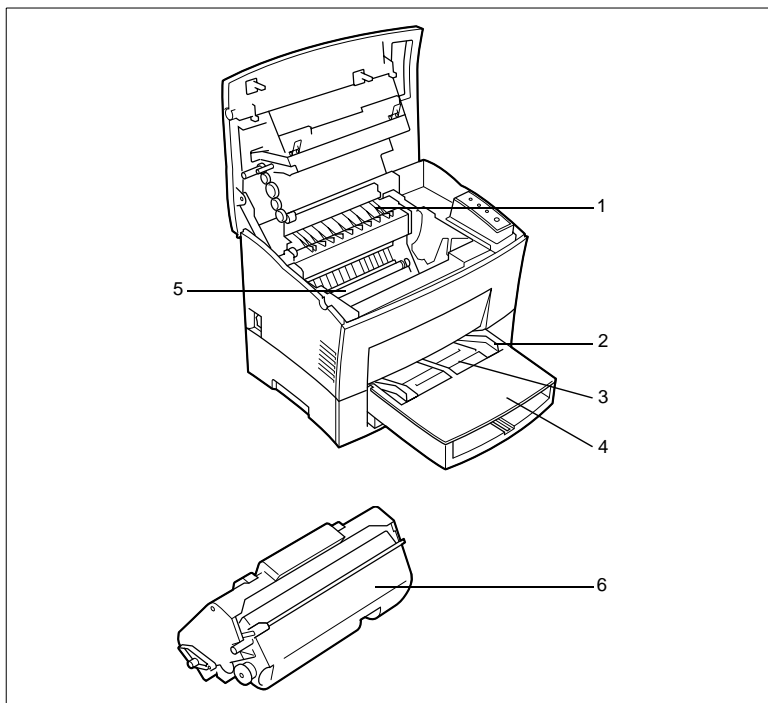
2.2 Overview of the printer

External features



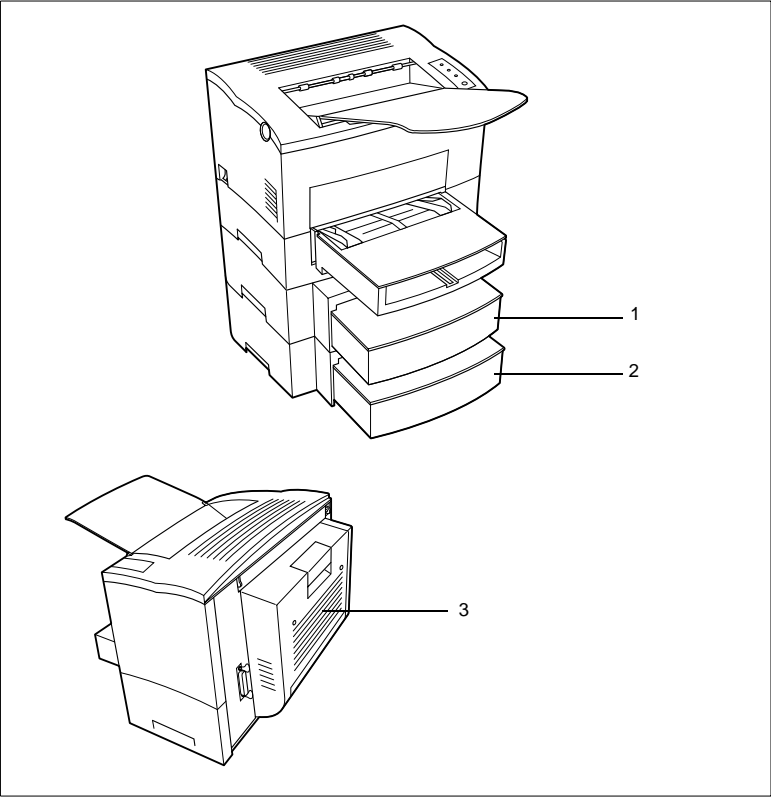
No.	Description	No.	Description
1	Release button for top cover	6	Paper feed tray 1 (multipurpose tray)
2	Control panel	7	Power Switch (ON/OFF)
3	Paper output tray (face down)	8	USB port
4	Top cover	9	Socket for power cable
5	Paper guides	10	Parallel port

Inside the printer



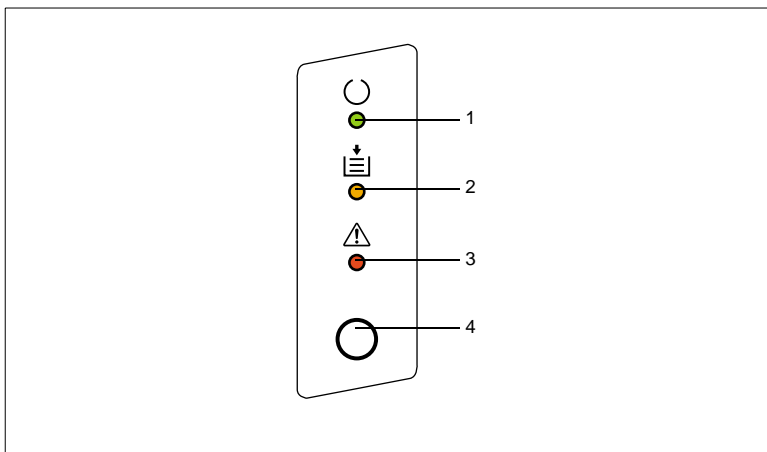
No.	Description	No.	Description
1	Fusing unit	4	Cover to paper feed tray 2
2	Paper guide	5	Image transfer roller
3	Manual paper feed unit	6	Imaging cartridge

Optional accessories



No.	Description	No.	Description
1	Paper feed tray 2 (500-sheet cassette)	3	Duplex unit
2	Paper feed tray 3 (500-sheet cassette)		

Printer control panel



The control panel has three lamps and one button.

No.	Description	No.	Description
1	Stand-by lamp (green)	3	Fault (red)
2	Paper empty (orange)	4	Control button

2.3 Installing your laser printer

Place of installation

The printer should be set up in a place which is:

- dry and free from dust,
- on a stable surface,
- well ventilated,
- away of highly flammable items, e.g. curtains,
- away of objects which might obstruct the printer's ventilation slits,
- near to an easily accessible power socket.

The printer must be positioned in a way that it cannot be adversely affected by the following:

- splashing liquids,
- organic gases, e.g. ammonia,
- direct sunlight,
- severe temperature fluctuations,
- exhaust-air from heating, ventilation or air-conditioning systems.

Storage of consumables and accessories

Printing consumables and accessories should be kept:

- sealed in their original packagings,
- protected against direct sunlight or heat,
- protected against fluorescent light,
- in a cool, dry and dust-free place,
- out of reach of children.



CAUTION

Toner poses a health hazard!

Toner is harmful if swallowed.

- If you swallow toner, consult a doctor immediately.
- If you get toner on your hands, wash them immediately with cold water and soap.

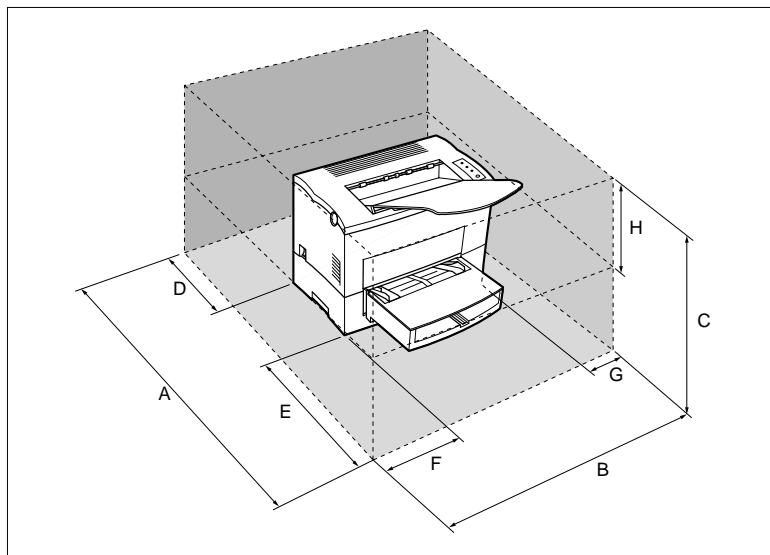
Ambient conditions

The optimum ambient conditions for your printer are as follows:

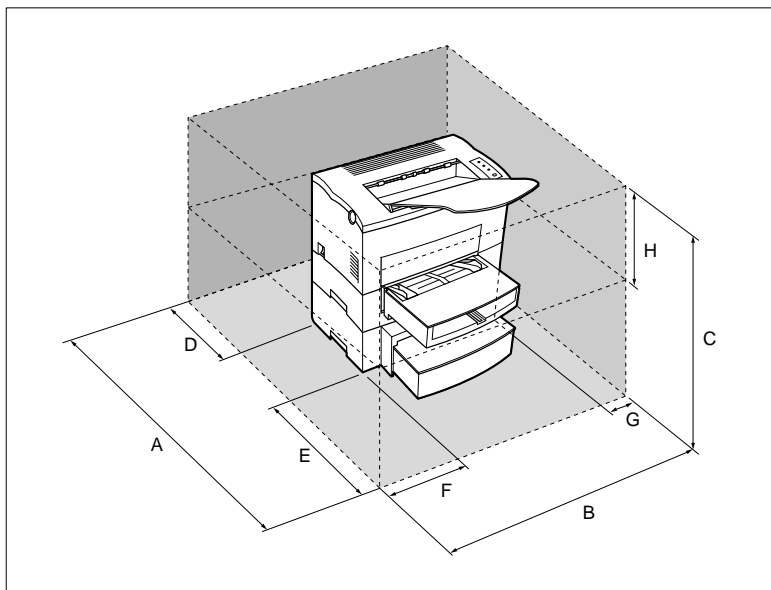
- Temperature range 50°F to 95°F / 10°C to 35°C
(maximum variation of 18°F / 10°C per hour);
- Relative humidity of 15% to 85%
(maximum variation of 20% per hour).

Space required

Make certain that there is enough space available around the printer (see figure). This will facilitate operation, reloading paper and toner, and maintenance of the printer.



Bez.	Maße	Bez.	Maße
A	40-1/2 in. / 1030 mm	E	23-1/2 in. / 600 mm
B	33 in. / 840 mm	F	11-3/4 in. / 300 mm
C	24-3/4 in. / 630 mm	G	4 in. / 100 mm
D	6 in. / 150 mm	H	11-3/4 in. / 300 mm



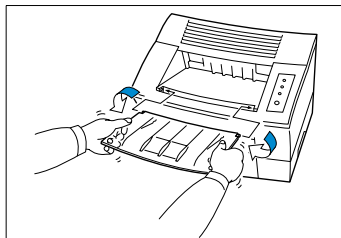
Bez.	Maße	Bez.	Maße
A	40-1/2 in. / 1030 mm	E	23-1/2 in. / 600 mm
B	33 in. / 840 mm	F	11-3/4 in. / 300 mm
C	29-1/2 in. / 750 mm	G	4 in. / 100 mm
D	6 in. / 150 mm	H	11-3/4 in. / 300 mm

2.4 Setting up your laser printer

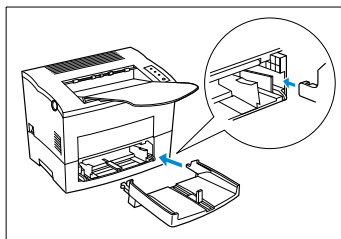
Fitting the paper output tray and paper feed tray 1

Set the guides of the paper feed tray to match the size of paper you wish to use.

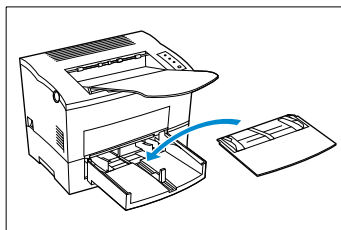
- 1 Attach the paper output tray to the printer as shown here.



- 2 Slide the lower part of the paper feed tray into the printer.



- 3 Fit the cover of paper feed tray 1.



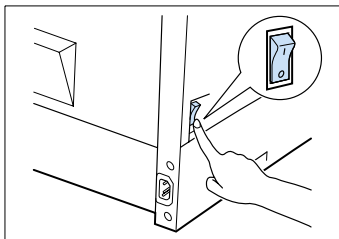
Connecting the power cable

Only use the power cable supplied with the printer!

The laser printer requires a power supply with minimal voltage and frequency fluctuation. If necessary, ask an electrician for advice.

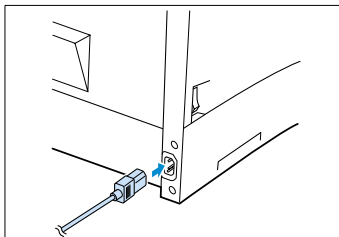
- ✓ Power supply: 120-127 V at 50-60 Hz / 220-240 V at 50-60 Hz
- ✓ Voltage fluctuation: 120 V -10%, 127 V +6% / 220-240 V \pm 10%
- ✓ Frequency fluctuation: Within 3 Hz

- 1 Make sure that the printer's power switch is in the "0" (OFF) position.



- 2 Insert the plug on the end of the power cable (supplied) into the power socket of the printer.

- 3 Insert the other end of the power cable into a power socket.



CAUTION

Using the wrong power cable may lead to a short-circuit situation!

The use of a power cable of inadequate cross-section can lead to a overheating of the cable.

- Only use an extension cable which has a higher rating than the current consumption of the printer.
 - Only use cables with a ground connection.
 - Always observe the relevant local regulations regarding the connection of electrical equipment to the mains network.
-

Switching the printer on and off



CAUTION

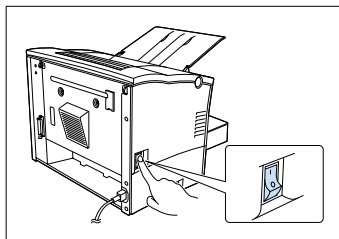
Improper handling may result in damage to the printer!

- Never switch off the printer while a print job is in progress, the printer is receiving data from the computer (flashing "Stand-by" lamp on the control panel) or the printer is being reset.

- Switch the power switch to "I" (ON) in order to activate the printer.

The printer is ready for use after approx. 23 seconds.

- Switch the power switch to "O" (OFF) in order to deactivate the printer.



...

Saving energy makes sense!

After the printer has not received a print command for a certain amount of time, it automatically switches to POWER SAVE mode. This time interval can be set using the control panel (see the Online manual). If the printer receives a new print job while it is in Power Save mode, or if the side cover is opened, or if the [ON LINE] key is pressed, the printer automatically starts its warm-up phase.

Printing a configuration page

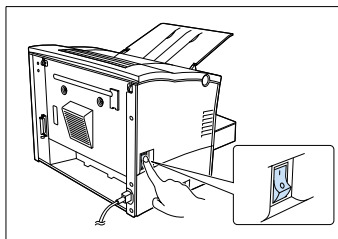
Print a configuration page in order to make sure that the printer is functioning properly.

1 Switch on the printer.

The printer is ready for use after approx. 23 seconds.

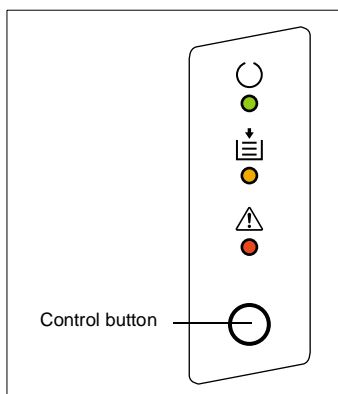
2 Make sure that:

- the "Fault" and "Paper" lamps are off, and
- the "Stand-by" lamp is on constantly.



3 Press the control button briefly.

The configuration page will now be printed.

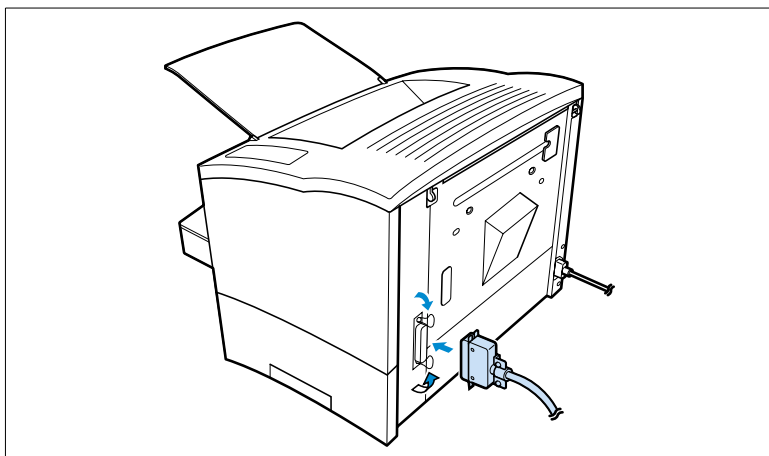


Be prepared for technical queries.

Please have a current configuration page available when calling for technical assistance. Make a note of the Serial No. of your printer on the configuration page, see page 1-8 (laser safety label).

Connecting the printer to a computer (parallel port)

- 1 Switch off the printer and the computer.
- 2 Connect one end of the interface cable to the parallel port of your computer.
- 3 Connect the other end of the interface cable to the parallel port of the printer.
- 4 Secure the connectors by means of the clips on the sockets.



For the technical specification of the cable, see page 11-5.



CAUTION

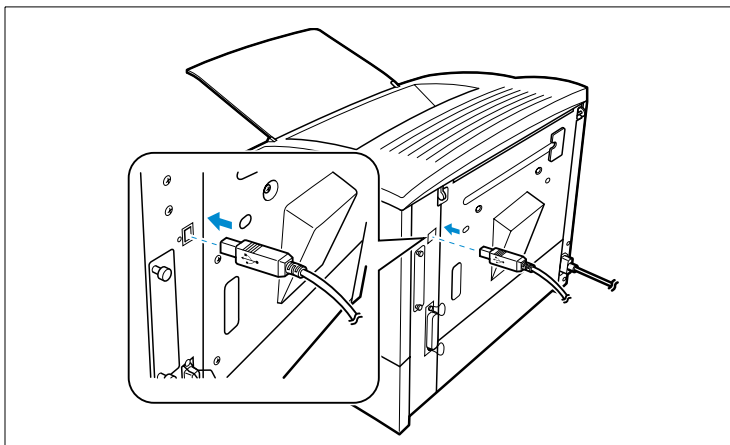
Using the wrong type of cable may result in damage to the equipment!

Using the wrong type of cable may damage the socket on the printer.

- Only use an IEEE 1284 type B shielded interface cable for connecting the printer to your computer.
- Minolta/QMS does not warrant the use of any particular cable. The user assumes all responsibility as to the quality and performance of the cable.

Connecting the printer to a computer (USB port)

- 1** Switch on the computer and start Windows 98.
- 2** Switch on the printer.
- 3** Connect one end of the interface cable to the USB port of the printer.



- 4** Connect the other end of the interface cable to the USB port of the computer.

3 Installing the printer driver

3.1 System requirements

The following system requirements will ensure that your printer runs without problems:

- An IBM-compatible PC with a 486DX 16MHz processor or higher (Pentium processor recommended).
- Microsoft Windows 3.1x, Windows 95, Windows 98, Windows NT 4.0, MS-DOS 6.2 or higher (except MS-DOS 7.0).
- At least 8 MB of RAM.
- At least 5 MB of spare memory capacity.
- A CD-ROM drive.
- I/O interface: an IEEE 1284 type B parallel cable.

3.2 Notes on installing the printer driver

The installation program is designed so that even people not accustomed to working with computers can easily accomplish it. You will be led step by step through the installation process. All you need to do is follow the instructions on the screen.

Before you begin the installation, you should observe the following points:

- What operating system is running on your computer?
- What is the letter of your CD-ROM drive (D, E, etc.)?
- Which optional accessories are fitted to your printer?
- Is your printer a local printer or a network printer?
- Local printer:
when the printer is connected directly to your computer via a parallel interface cable.
- Network printer:
when the printer is integrated in a computer network.



More questions?

If you are still not certain about making a setting, you can display additional information on screen by using the HELP button.

General information on the printer driver

The printer driver is on a CD-ROM supplied with the printer. If your computer is not fitted with a CD-ROM drive, then you can download the printer driver from the Internet.

You will find the latest version of the printer driver under the address <http://www.qms.com>.

Information on installation using Plug-and-Play

We recommend the printer driver being installed using the CD-ROM's installer. If you install the printer driver using hardware wizards or device driver update wizards (plug-and play installation), you should note these points:

- The "Drivers\Pp4100\Win95 or Win311\GB\Pcl\drv" directory on the CD-ROM must be specified.
- The Status Display, Control Panel and Driver Help will not be installed.
- The auxiliary program for deinstallation will not be installed. To use this auxiliary program, start the file "zuninst.exe" on the CD that is supplied with your printer.

Information on installation using the Add Printer Wizard

Do not use the Add Printer Wizard from the Printers folder. Installation through the Add Printer Wizard will prevent the printer from performing properly.

We recommend the printer driver being installed using the CD-ROM's installer.

Information on installing a network printer



Local printer or network printer?

*The printer can be equipped with an optional network card if required.
Please contact your hardware supplier.*

You can install the printer as a local printer or as a network printer. You should note the following points when installing it as a network printer:

- If you would like to access the printer from a server running Windows 95, first install the printer driver from the server using the installation program. Do not use the hardware wizard for printer installation.
- If your printer will not be printing any documents in a network environment, set the data spool format of the client to RAW.

3.3 Installing the USB device driver

When connecting the PagePro 4100E printer to your computer with a USB cable, install the USB device driver according to the following instructions before installing the printer driver.

This printer can only be connected with a USB cable if the computer is running Windows 98.

- 1 Switch on your computer and start Windows 98.
- 2 Switch on the printer.
- 3 Check that Windows 98 has finished loading and that the printer is ready.
- 4 Insert the Printer Driver CD-ROM supplied with your printer into your computer's CD-ROM drive.
- 5 When the opening screen appears, close it.
- 6 Connect the printer to the computer with the USB cable (see page 2-16) to display the Add New Hardware Wizard dialogue.



- 7 Click [NEXT] to display the next dialogue.

- 8 Check the “Search for the best driver for your device” box, and then click [NEXT].



- 9 When the next dialogue appears, check the Specify a location box, and then click [BROWSE...].



- 10 Browse the CD-ROM and navigate to “Drivers\Pw4100\Win98\ D\Pc\Drv\usb”. Then click [OK].

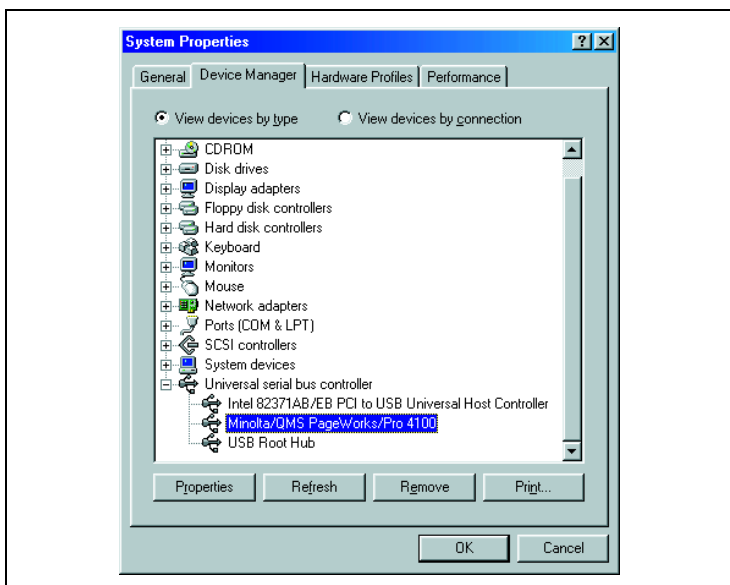
- 11 When the following dialogue appears, click [NEXT].



- 12 When the following dialogue appears, click [FINISH] to complete the installation.



- 13** After installation is complete, check that “Minolta/QMS PagePro 4100” appears below Universal serial bus controller on the Device Manager tab of the System Properties dialogue. To display the System Properties dialogue, right-click the [MY COMPUTER] icon on the desktop, and then click [PROPERTIES] in the shortcut menu that appears.



- 14** Eject the CD-ROM from your computer's CD-ROM drive.

This completes the installation of the USB device driver for the PagePro 4100E printer.



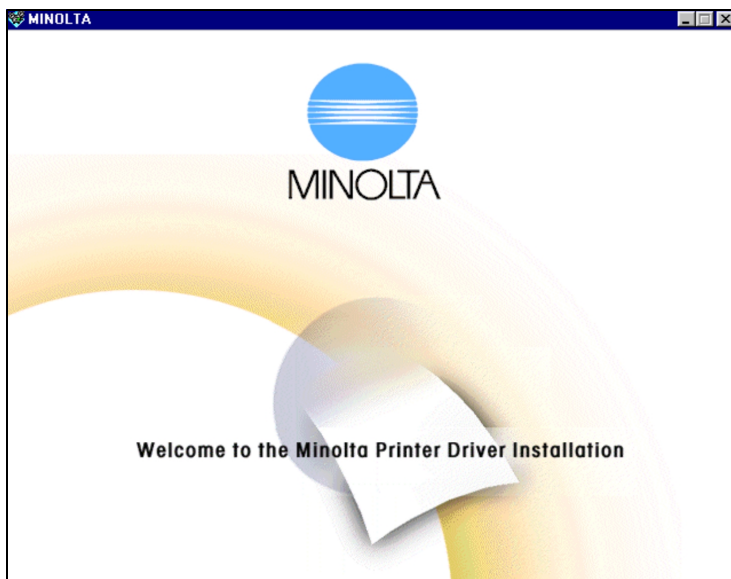
And now install the printer

When installing the PCL printer driver you must select “USB/0” when prompted for the printer port (Select Port).

3.4 CD-ROM installation for Win95, Win98 or WinNT4.0

- 1 Make certain that the printer is connected to your printer locally or through a network.
- 2 Switch on the printer.
- 3 Switch on the computer and start Windows 95, Windows 98 or Windows NT 4.0.
 - ? *When the **Update Device Driver Wizard** dialog appears under Win 95 or 98:*
 - Click [CANCEL] to close the dialog.
- 4 Place the PagePro 4100E printer driver CD in the CD-ROM drive of your computer.

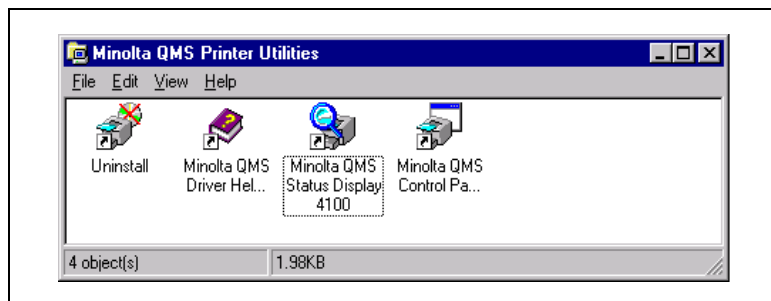
The installation program starts automatically.



- ? *The installation program does not start automatically?*
 - Start Windows Explorer and open the directory of the CD.
 - Double-click on "Pagepro.exe" to start the installation program.
- 5 In the next dialog window, choose a language for the installation procedure.

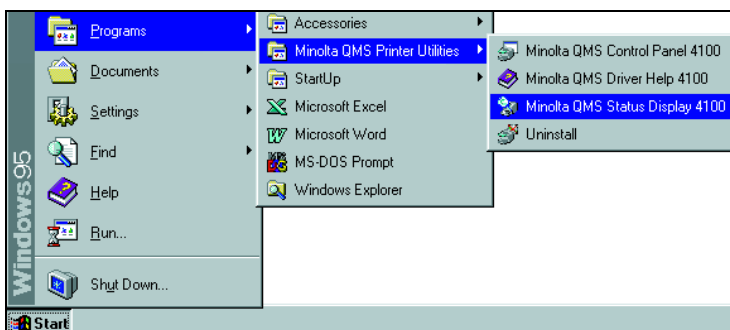
- 6 Follow the instructions on the screen to complete the installation.

After the printer driver has been successfully installed, the “Minolta QMS Printer Utilities” Program Group appears.



You can now call up the “Minolta QMS Printer Utilities” Program Group via the Windows Start menu.

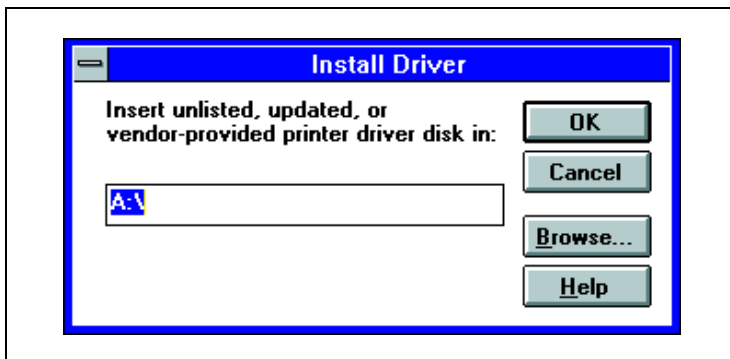
1



3.5 Installation for Windows 3.1x

Install the printer driver for Windows 3.1x as described below and not via the Printers dialogue box.

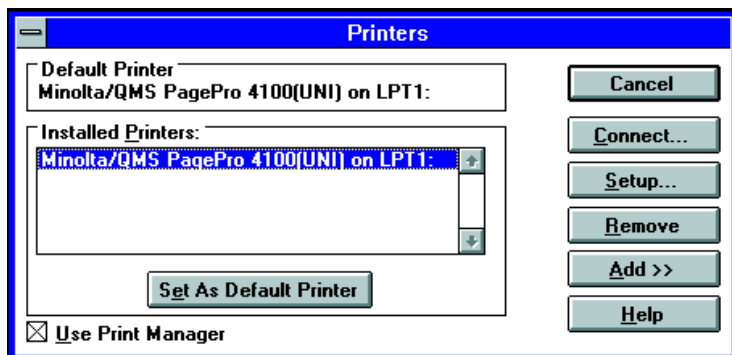
- 1 Make sure that the printer is connected to your computer locally or via a network.
- 2 Switch on the printer.
- 3 Switch on the computer and start Windows 3.1x.
- 4 Place the printer driver CD in the CD-ROM drive of your computer.
- 5 Double-click the icon [CONTROL PANEL] which is located in the "Main group" within the "Program Manager". Double-click [PRINTERS] to display the "Printer" dialog.
- 6 Click on "Add>>" to display the list of printers. Select "Install unlisted or updated printer" and click on "Install".
The following box appears.



- 7 Browse to the CD-ROM drive and navigate to "Drivers\Pp4100\Win311\GB\Pcl\drv". Confirm with [OK].
- 8 Select Minolta/QMS PagePro 4100 [UNI] from the list and confirm with [OK].

9 Click on [Set as default printer].

After the printer driver has been successfully installed, the icon for "Minolta/QMS PagePro 4100 [UNI]" appears in the "Printers" Program Group.



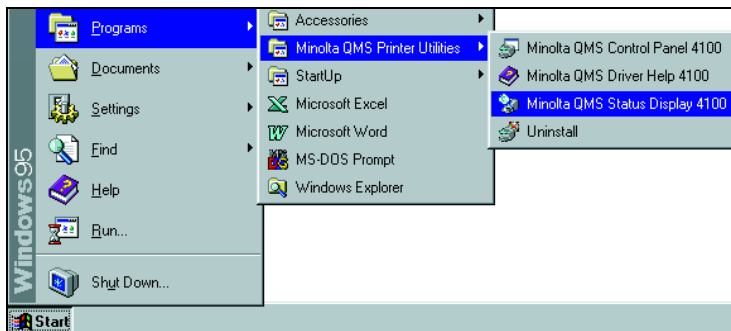
? An error message appears announcing that the UNIDRV.DLL file is required but cannot be found.

→ Install a UniTool Driver from the list of printers and try again.

3.6 Uninstalling the Windows printer driver

Deinstallation for Windows 95/98 and Windows NT 4.0

- 1 Call up the “Minolta QMS Printer Utilities” Program Group.



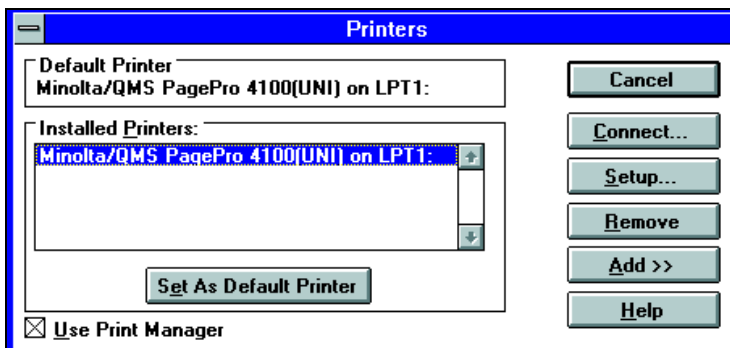
- 2 Click on “Uninstall”.
- 3 Follow the subsequent instructions.

The deinstallation program starts automatically.

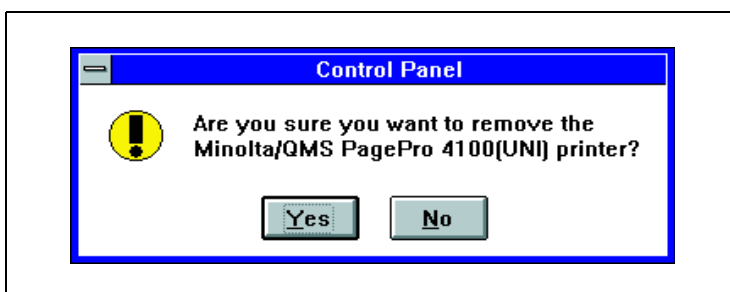
The deinstallation of the printer driver is successfully completed once the Windows operating system has been restarted.

Deinstallation for Windows 3.1x

- 1 Call up the "Minolta/QMS PagePro 4100 [UNI]" Program Group.



- 2 Click on "Remove".
You are prompted to confirm/cancel your selection.
- 3 Click on [YES] in order to delete the printer driver.



- 4 Click on [Close].
The program group is deinstalled.

3.7 Installation for MS-DOS

MS-DOS versions 6.2 or higher (except MS-DOS 7.0) are supported.

- 1 Make sure that the printer is connected to your computer locally or via a network.
- 2 Switch on the printer.
- 3 Switch on the computer and start MS-DOS.
- 4 Place the PagePro 4100E printer driver CD in the CD-ROM drive of your computer.
- 5 Change to the CD-ROM drive.
Enter, for example: **d:**
(**d** = corresponding letter of your CD-ROM drive)
- 6 Change to the directory which contains the installation program.
Enter: **cd Drivers\Pp4100\Dos**
- 7 Start the installation program.
Enter: **install**
- 8 Select the option required and press ENTER.



AUTOEXEC.BAT file modified!

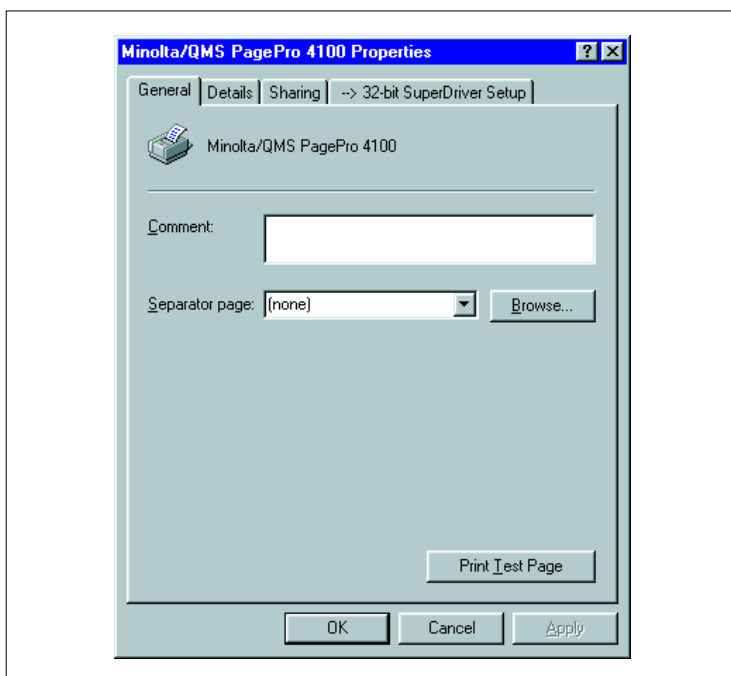
One command line was added to the AUTOEXEC.BAT file. The purpose of this command is to ensure that the Status Display is automatically loaded upon switching on the computer or executing the AUTOEXEC.BAT file.

4 Working with the Windows printer drivers

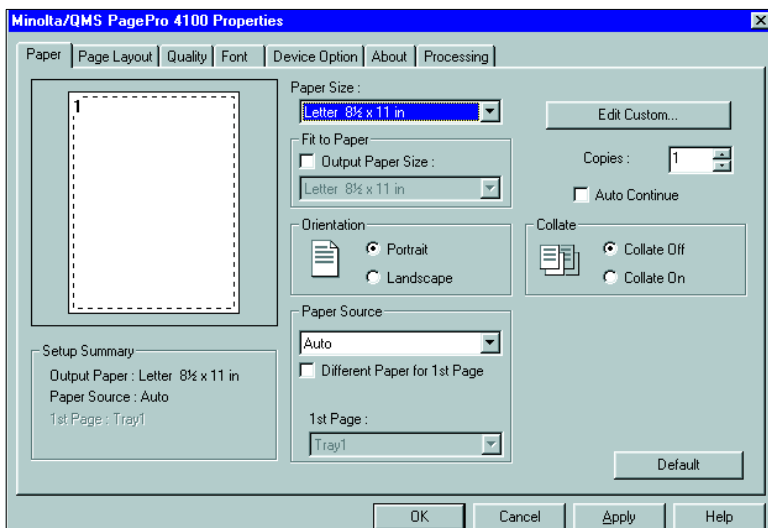
4.1 Displaying printer driver settings

Displaying settings in Windows 95/98

- 1 In the START menu, select "Settings – Printer".
The "Printer" dialogue box appears.
- 2 Click on the "Minolta/QMS PagePro 4100" icon.
- 3 Under "File", select the item "Properties".
The following box appears.



- 4 Click on the "-> 32-bit SuperDriver Setup" tab.
The printer driver dialogue box appears.

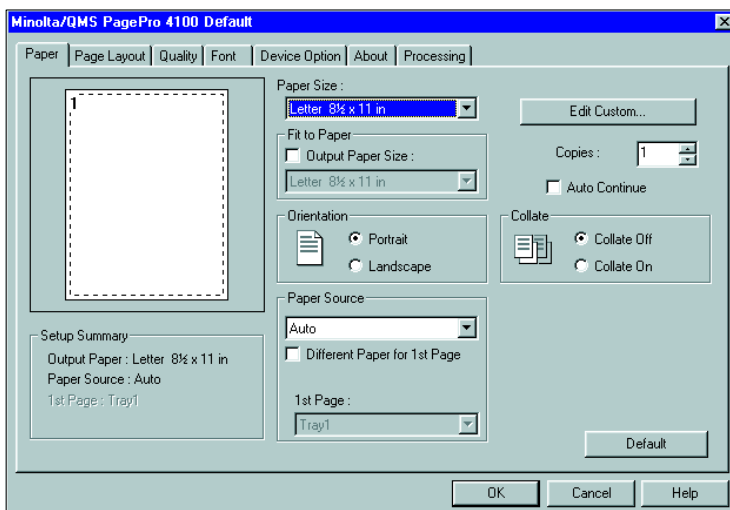


The operating system also uses index cards!

The "About" index card is automatically determined by the operating system and is therefore not described in this manual.

Displaying settings in Windows NT 4.0

- 1 In the START menu, select “Settings – Printer”.
The “Printer” dialogue box appears.
- 2 Click on the “Minolta/QMS PagePro 4100” icon.
- 3 Under “File”, select the item “Document Defaults”.
The following box appears.

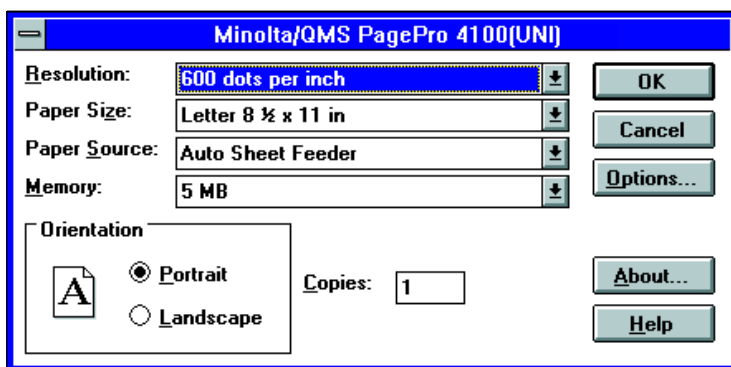


Displaying the settings in Windows 3.1x

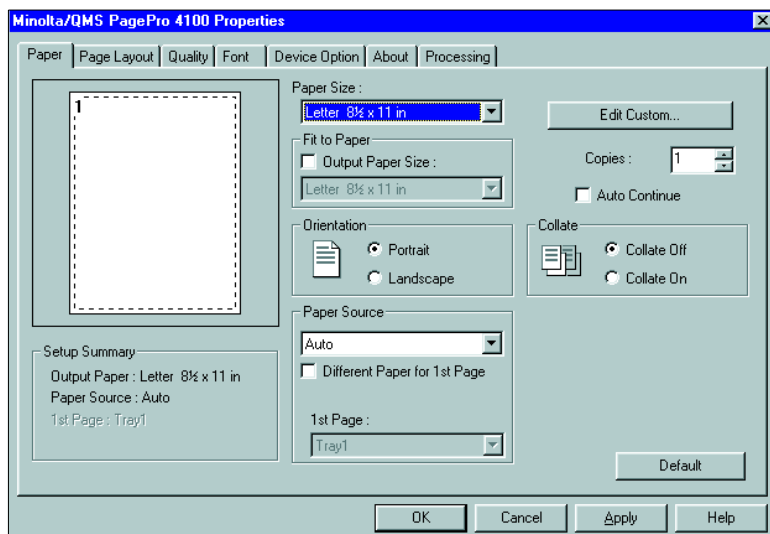
The options on the individual index cards correspond to those of Windows 95/98.

- 1 In the Windows main group, double-click on the "Control panel" icon.
The "Control panel" program group appears.
- 2 In the Control panel window, click on the "Printers" icon.
The "Printer" dialogue box appears.
- 3 In the "Printer" dialogue box, select Minolta/QMS PagePro 4100 [UNI] from the list of "Installed printers".
- 4 Click on [SETUP...].

The Driver Setup dialogue box appears.



4.2 Paper index card



This index card allows you to:

- select the paper format,
- set up custom paper formats,
- fit documents to a paper format upon print-out,
- specify the number of copies,
- specify the orientation of the paper,
- switch on/off the printer's sorting function
- specify paper feed from different trays,
- recall the original settings (Default).

Selecting a paper format

Use “Paper size” to specify the format of the printed page. The various paper sizes supported by your printer are shown in the dropdown list.

The following formats have a fixed definition in the dropdown list:

Paper	Size	Envelopes	Size
Letter	8.5 x 11 in.	Env. Monarch	3.875 x 7.5 in.
Legal	8.5 x 14 in.	Env. COM10	4.125 x 9.5 in.
Executive	7.5 x 10.5 in.	Env. DL	110 x 220 mm
A4	210 x 297 mm	Env. C5	162 x 250 mm
A5	148 x 210 mm	Env. B5	176 x 250 mm
JIS B5	182 x 257 mm	J-Post (Postcard)	4 x 5.75 in.

You can design your own custom formats and add them to this list, see page 4-7.



Not all paper formats available?

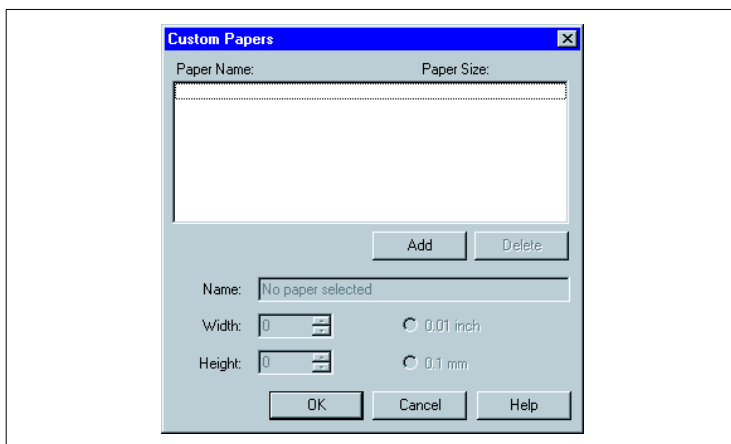
If you have selected the optional paper feed tray 2 or 3 under “Paper source”, then not all the paper formats given in the table are available.

Creating a custom paper format

You can create your own personally designed paper size.

- 1 Click on [EDIT CUSTOM...].

The “Custom papers” dialogue box appears.



- 2 To create a new paper size, click on [ADD].

The boxes underneath are then activated.

- 3 Enter a name for the new paper format.

- 4 Specify the unit of measurement (inches, millimetres).

- 5 Specify the dimensions (width x height).

- min. dimensions: 3 1/2 × 8 1/2 in. / 88 × 216 mm
- max. dimensions: 6 × 14 in. / 152 × 356 mm

- 6 Confirm your entries with [OK].

The dialogue box closes. The newly created format is now displayed at the end of the “Paper size” dropdown list and can be selected when required.



You wish to delete a custom format?

In the “Custom papers” dialogue box, mark the paper size you wish to delete. Then click on [DELETE]. Confirm with [OK].

Adjusting the print-out to fit the paper

Use the "Fit to paper" function to fit your document to a certain paper size when it is printed. Your document will be automatically enlarged or reduced so that it will fit on the paper size you have selected.

The "Fit to paper" function cannot be used at the same time as the "N-Up" or "All raster" functions.

- 1 Activate the checkbox "Fit to paper".

This activates the dropdown list underneath.

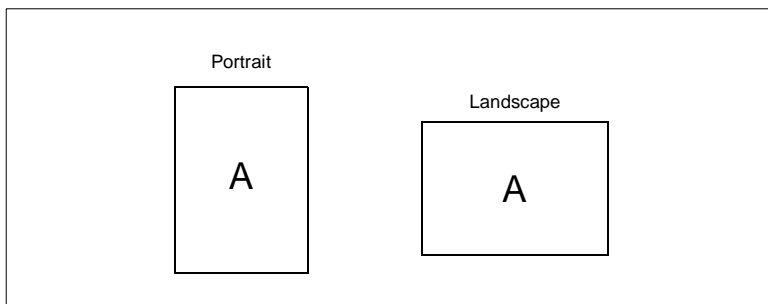
- 2 From the dropdown list that is now available, select the paper size on which you would like to print.
- 3 Confirm your entries with [OK].

Specifying the number of copies

In the "Copies" box, specify the number of copies that you wish to print out. You may enter any value between 1 and 999.

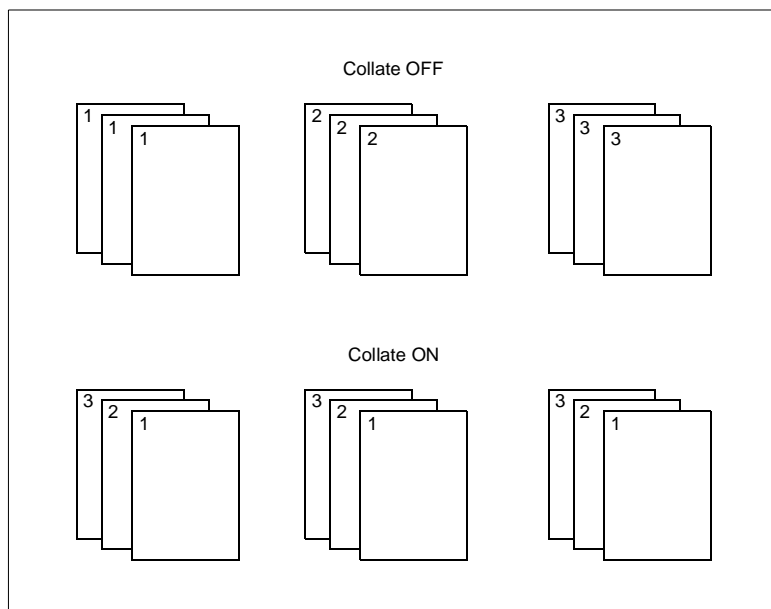
Specifying the orientation of the print paper

Under "Orientation" you can specify whether your document should be printed in portrait (vertical) or landscape (horizontal) format.



Switching on/off the printer's sorting function

Switch on the "Collate" function in order to sort your print-outs automatically.



Deactivate the sort feature in other applications!

Deactivate the sort feature in other software applications if there is a conflict between the setting in the printer driver and the setting in the other application.

Specifying the paper source

Under “Paper source“ you can specify which tray will feed the printer.

Paper source	Description
Auto	Printing paper is fed from all available trays
Tray 1	Printing paper is fed from tray 1
Tray 2/3*	Printing paper is fed from tray 2/3
Manual feed	Printing paper is fed into the printer through the manual feed unit. To feed paper manually, place a sheet in the input and press the control button.

* optional paper source units



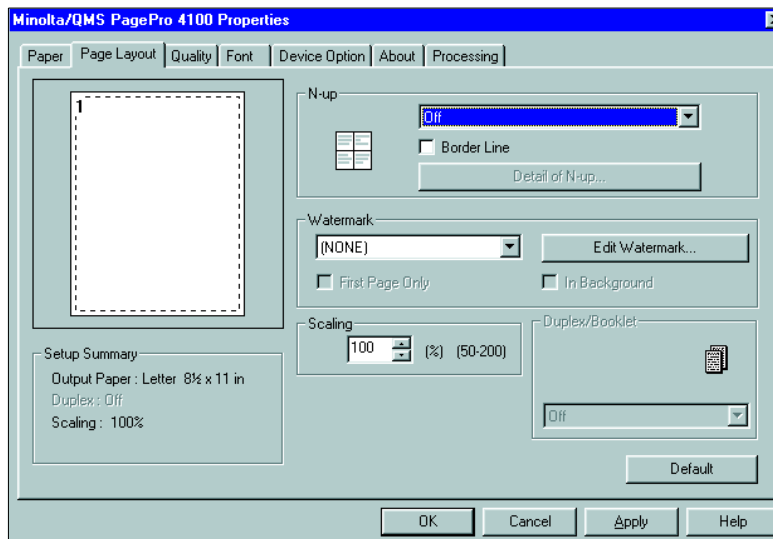
Not all paper formats available?

If you have selected the optional paper feed tray 2 or 3 under “Paper source“, then not all the paper formats given in the table are available.

Recalling the original settings [DEFAULT]

Click on [DEFAULT] in order to reset all options on this index card to their original factory settings.

4.3 Page layout index card



This index card allows you to:

- print several pages of a document on the same print page,
- provide print-outs with a watermark,
- design custom watermarks,
- scale (enlarge/reduce) documents upon print-out,
- activate the duplex function (printing on both sides).

Printing multiple document pages per print page (N-up)

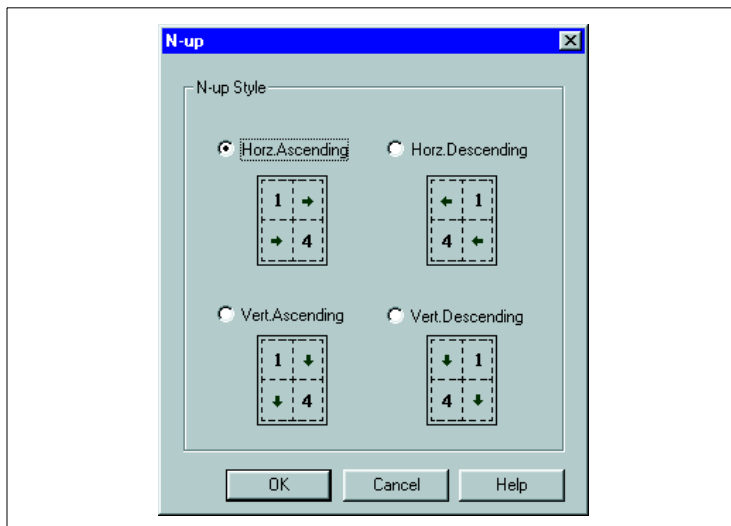
Use the “N-Up” function to print multiple reduced document pages on a single print page.

The “N-up” function cannot be used at the same time as the features “Scaling”, “Fit to paper” and “All raster”.

N-Up settings	Description
Auto	One document page will be printed on each print page
2 pages per sheet	Two document pages will be printed on each print page
4 pages per sheet	Four document pages will be printed on each print page
9 pages per sheet	Nine document pages will be printed on each print page
16 pages per sheet	16 document pages will be printed on each print page

- Activate the “Border line” checkbox to separate individual document pages from each other by means of lines.
- Click on [DETAIL OF N-UP...] to define the layout of document pages on the print page.

The “N-Up” dialogue box appears.



Printing watermarks

Use the “Watermark” function to print background texts on your print pages that will inform the reader at a glance about the nature of your document.

- Select a predefined watermark from the dropdown list.
- Activate the checkbox “First page only” so that the watermark will only be printed on the first page of a multi-page document.



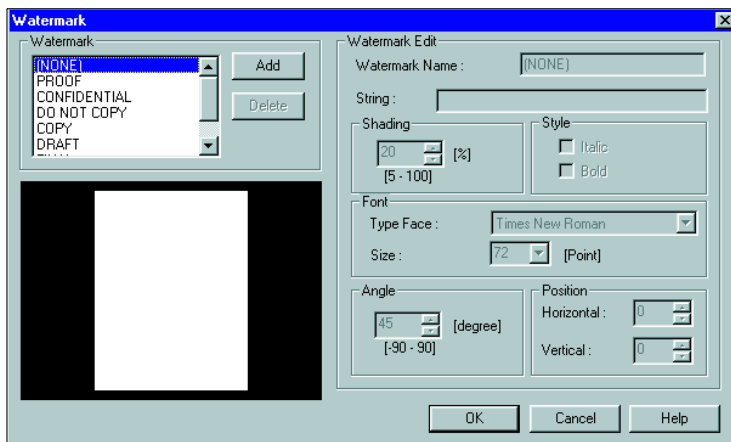
Watermarks as copy protection!

Provide your print-outs with a watermark in order to prevent the printed pages from being copied.

Custom watermarks

Design your own personal watermark.

- 1 Click on [EDIT WATERMARK...] in order to open the “Watermark” dialogue box.



- 2 Click on [ADD] to create a new watermark,
or
click on a predefined watermark to modify it.

The fields under “Watermark edit” are activated.

- 3 Design your watermark by changing the settings.

In the preview box you can see how the watermark will appear when it is printed and where it is positioned on the page.

- 4 Confirm your entries with [OK].

The dialogue box closes.



Deleting watermarks? No problem!

If you would like to delete a watermark, mark it in the list of watermarks and click on [DELETE].

Scaling the printed document

The print-out of a document may be enlarged or reduced by means of the “Scaling” function.

The “Scaling” function cannot be used at the same time as the “N-up” or “All raster” functions.

- In the “Scaling” box, enter the value – in per cent (%) – by which the document is to be enlarged or reduced (max. reduction: 50%; max. enlargement: 200%).

Duplex function

The Duplex function allows you to automatically print on both sides of the paper.

A dropdown list offers you the following options:

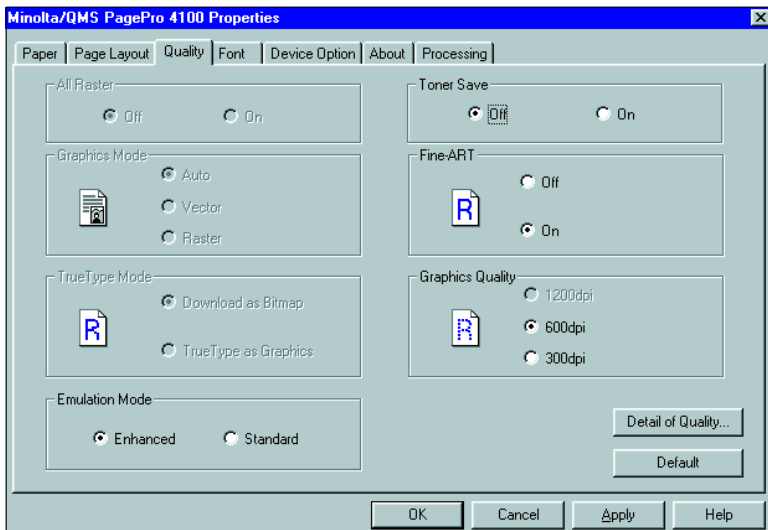
- Short edge binding,
- Long edge binding,
- Booklet left open: for printing a document which is folded once in the middle and bound on the right-hand side,
- Booklet right open: for printing a document which is folded once in the middle and bound on the left-hand side.



The booklet function is not available?

The Scaling, Fit to paper and N-up functions cannot be used at the same time as the Booklet function.

4.4 Quality index card



This index card allows you to:

- optimize the exchange of text and graphics data with the printer (All raster),
- switch on/off Toner Save mode,
- determine the graphics mode,
- optimize the print quality of text and graphics (Fine-ART),
- determine the True-Type mode,
- specify the resolution for the print-out,
- determine the emulation mode,
- optimize the printing of graphics [DETAIL OF QUALITY...].



Not all menus available simultaneously?

If, for example, the emulation mode has been set to “Enhanced”, then the “All raster” function is not available. If the “All raster” function is set to OFF, the “Graphics mode” menu is available, etc.

Optimizing data exchange with the printer (All raster)

Use the “All raster” function to determine the format in which graphics and font data is loaded into the printer.

The “All raster” function cannot be used at the same time as the “N-up”, “Scaling”, “Fit to paper” and “Font” functions.

- Select “ON” to send both graphics and font data to the printer as raster graphics. This makes it possible for the printed document to agree as closely as possible with the appearance on the screen. Printing may be slower with this function activated.
Printer-resident fonts cannot be used
- Select “OFF” to send your document to the printer in the conventional transmission form.
Printer-resident fonts may be used.
The graphics mode can be specified manually.

Switching Toner Save function on and off

You can reduce your printing costs with the “Toner Save” feature.

Text and graphics are printed in grey in Toner Save mode. The purpose of this is to use as little toner as possible. You can save on printing costs by printing rough drafts and other preliminary materials in Toner Save mode.

- Select “ON” to print your documents using a minimal amount of toner.
- Select “OFF” to print your documents with the normal amount of toner.

Specifying the graphics mode

The “Graphics mode” function defines the format in which graphics data is exchanged with the printer.

This function is only available when “All raster” is set to “OFF”.

- Select “AUTO” to enable the most appropriate graphics mode to be selected automatically.
- Select “VECTOR” to treat the graphics in your document as vector graphics. Loading graphics as vectors speeds up the printing process.
- Select “RASTER” to treat the graphics in your document as bitmaps. Loading graphics in this mode takes longer than the vector mode but does rectify printing problems.

Optimizing the print quality of text and graphics (Fine-ART)

Use the “Fine-Art” function to smooth the edges of text and graphics and hence optimize the print quality.

- Select “OFF” to achieve an optimum print quality for photos (raster graphics).
- Select “ON” to achieve an optimum print quality for text and graphics (vector graphics) in your document.

Specifying TrueType mode

The “TrueType mode” function allows you to specify the format in which TrueType fonts are to be exchanged with the printer.

This function is only available when “Graphics mode” has been set to “RASTER”.

- Select “DOWNLOAD AS BITMAP” to load TrueType fonts into the printer as bitmap fonts. Printer-resident fonts are available in this mode.
- Select “TRUETYPE AS GRAPHICS” to load TrueType fonts into the printer as raster data. Printer-resident fonts are not available in this mode.

Determining the resolution

The quality of the print-out is defined by means of the “Graphics quality” function.

- Select “300 dpi” for normal print-outs, e.g. for text and graphics with thick line elements (with Fine-ART).
- Select “600 dpi” for print-outs which require a high print quality, e.g. for text and graphics with fine line elements (with Fine-ART).
- Select “1200 dpi” for print-outs which require a very high print quality, e.g. high-resolution graphics.

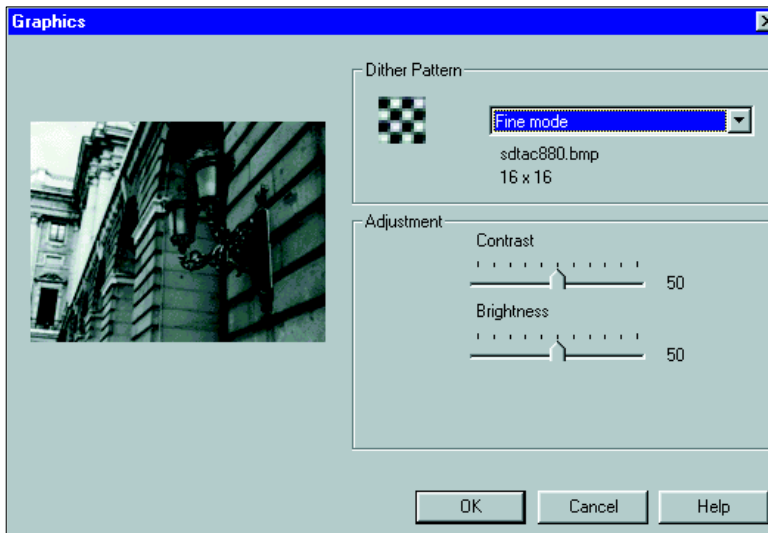
Specifying the emulation mode

This function is only available when “All raster” is set to “OFF”.

- Select “ENHANCED” for PCL6 compatibility.
- Select “STANDARD” for PCL5e compatibility.

Optimizing the presentation of graphics in the print-out (Detail of quality...)

The Graphics dialogue window is called up via the [DETAIL OF QUALITY...] button. This window contains further options for optimizing the appearance of graphics in the print-out.



Two options are available:

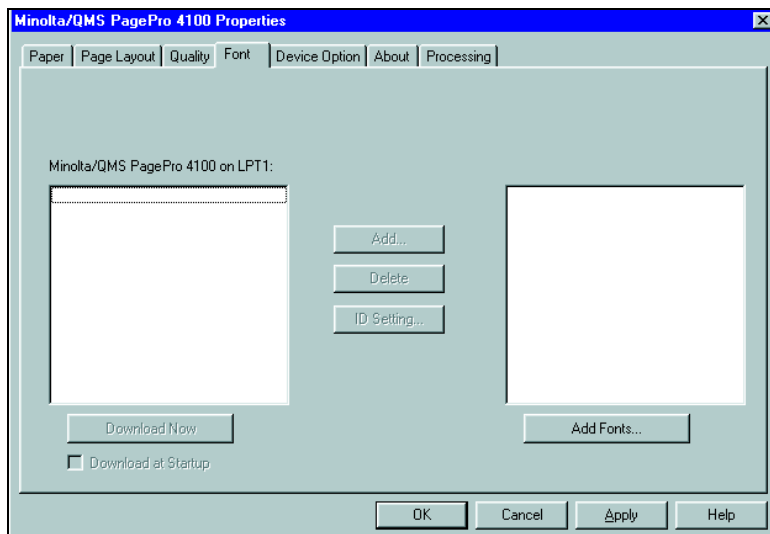
- Dither pattern
influences the presentation of grey tones and shading in pictures. The coarser the dither pattern, the coarser the grey gradations.
- Adjustment
Slider controls enable you to alter the contrast and the brightness of graphics.



You wish to send graphics by fax?

When you print out graphics that you intend to fax or copy afterwards, select the "Photocopy" dither pattern. The graphics are then printed out in a form suitable for faxing or copying.

4.5 Font index card



This index card allows you to:

- add fonts to the printer's on-board memory,
- delete fonts from the printer's on-board memory,
- set the ID.

Adding fonts

You can add fonts to the printer's on-board memory via the Paper?? index card.

- Click on [ADD FONTS...] and then specify the directory in which the downloaded fonts are to be saved.

If there are already fonts in this directory, then these are shown in the right-hand list.

If the list shows fonts to be downloaded in the right-hand list box, then the button changes from [ADD FONTS...] to [CLOSE DRIVE].

- Click on [CLOSE DRIVE] to close the contents of the right-hand list box and show the [ADD FONTS...] button again.

Deleting fonts

The fonts shown in the left-hand list can be deleted.

- Mark the font to be deleted and then click on [DELETE].

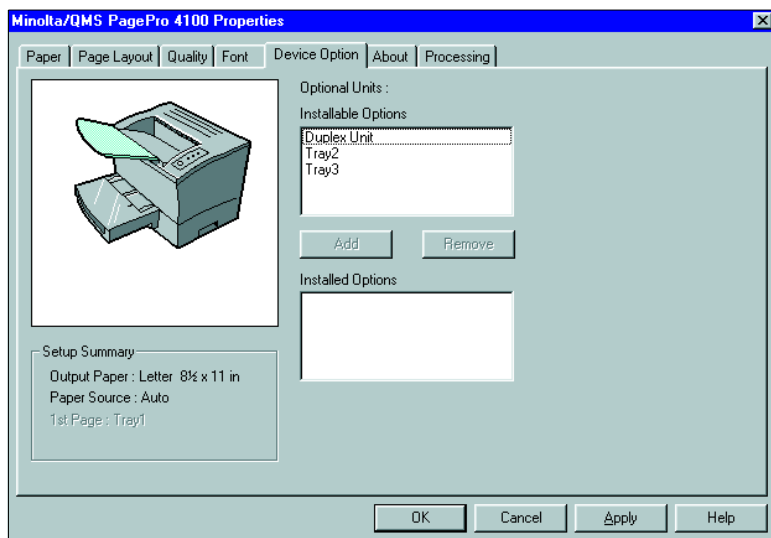
Setting the ID

You may specify numbers as ID codes for fonts.

- Click on [ID SETTING...] in order to determine the ID codes for the fonts you have already marked in the left-hand list.

When downloading the font, the printer driver allocates the ID code to the respective font.

4.6 Device option index card



This index card allows you to:

- activate the optional duplex unit,
- activate optional paper feed tray 2 or 3.

Activating the optional duplex unit

If you have installed the duplex unit, then you can mark this in the list of available options.

- Activate the duplex unit with the [ADD] button.
- Deactivate the duplex unit with the [REMOVE] button.

Activating optional paper feed tray 2 or 3

If you have installed paper feed tray 2 or 3, then you can mark this in the list of available options.

- Activate paper feed tray 2 or 3 with the [ADD] button.
- Deactivate paper feed tray 2 or 3 with the [REMOVE] button.

5 Working with the Windows printer tools

The Windows printer tools include:

- the Status Display and
- the Control Panel.



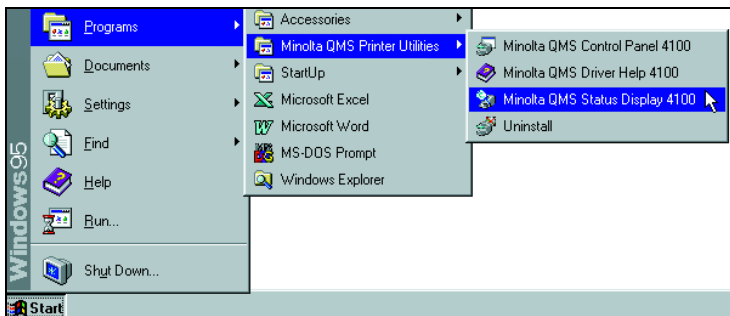
Automatic start of Status Display!

If upon installing the printer driver you activated the option to automatically start the printer driver, then the Status Display is automatically called up upon starting the computer.

5.1 Calling up the Status Display

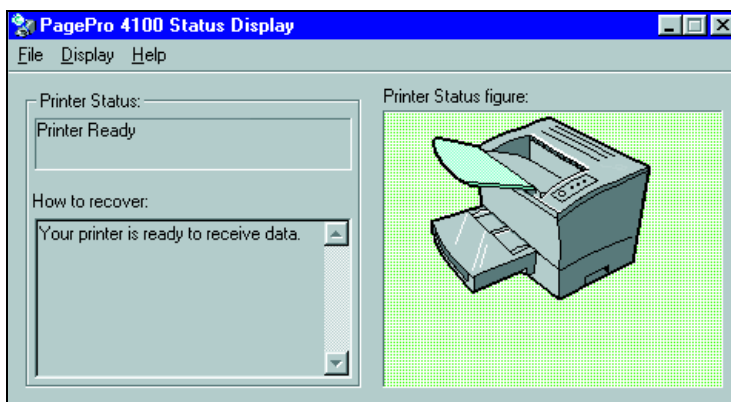
Calling up the Status Display in Windows 95/98, Windows NT 4.0

- 1 Open the “Minolta QMS PageWorks/Pro 4100” Program Group.



- 2 Click on “Minolta QMS Status Display 4100”.

The Status Display appears.



Calling up the Status Display in Windows 3.1x

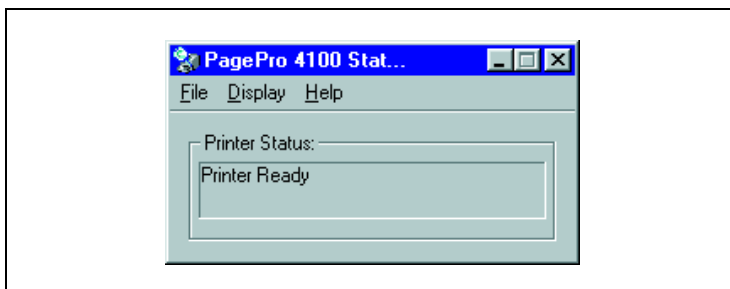
The options on the individual index cards correspond to those of Windows 95/98.

- 1** Open the "Minolta/QMS PagePro 4100 [UNI]" program group within the Program Manager.
- 2** Doubleclick the [MINOLTA/QMS PAGEPRO 4100 STATUS DISPLAY] icon.

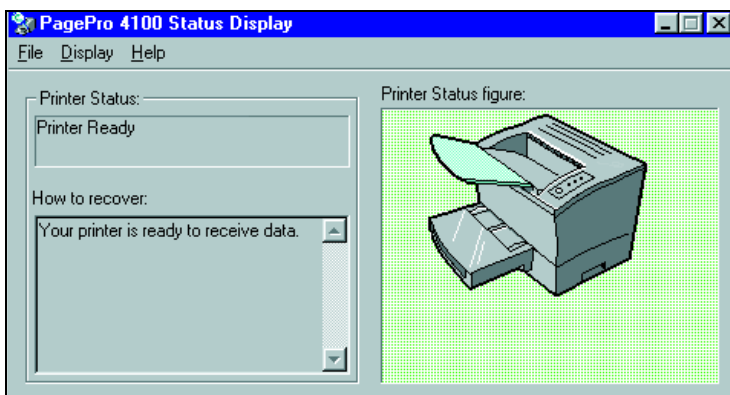
The "Status Display" appears.

Altering the size of the Status Display window

- In the Status Display menu bar, select the "View" menu and then the option "Reduce" in order to decrease the size of the window.



- In the Status Display menu bar, select the "View" menu and then the option "Expand" in order to increase the size of the window.

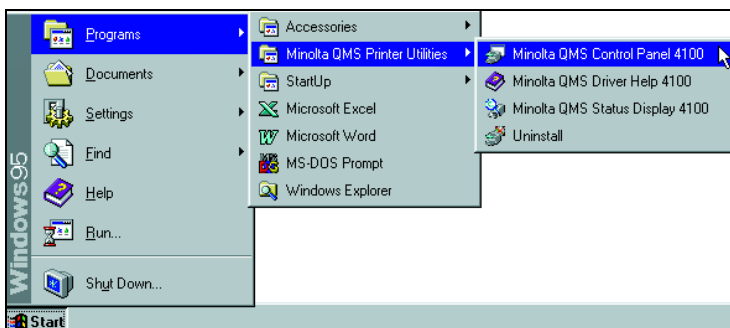


5.2 Calling up the Control Panel

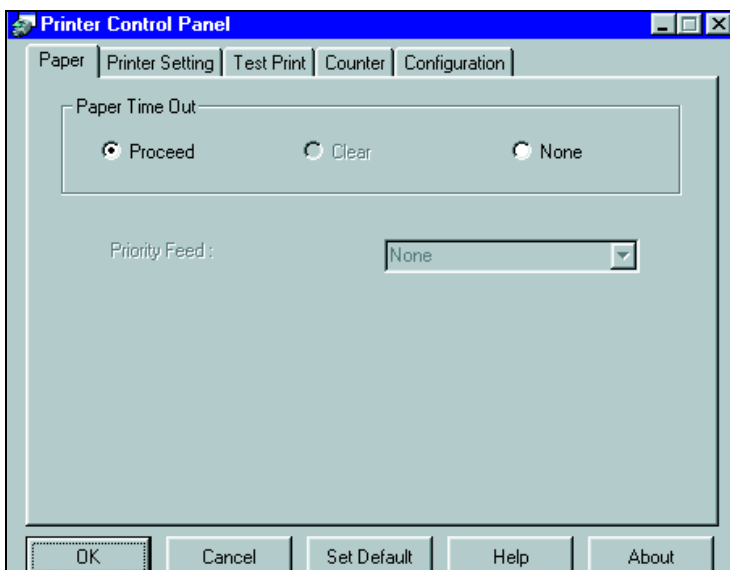
Use the Control Panel in order to check and/or alter the basic settings of the printer.

- 1 Open the “Minolta QMS PagePro 4100” Program Group.
- 2 Click on “Minolta QMS Control Panel 4100”.

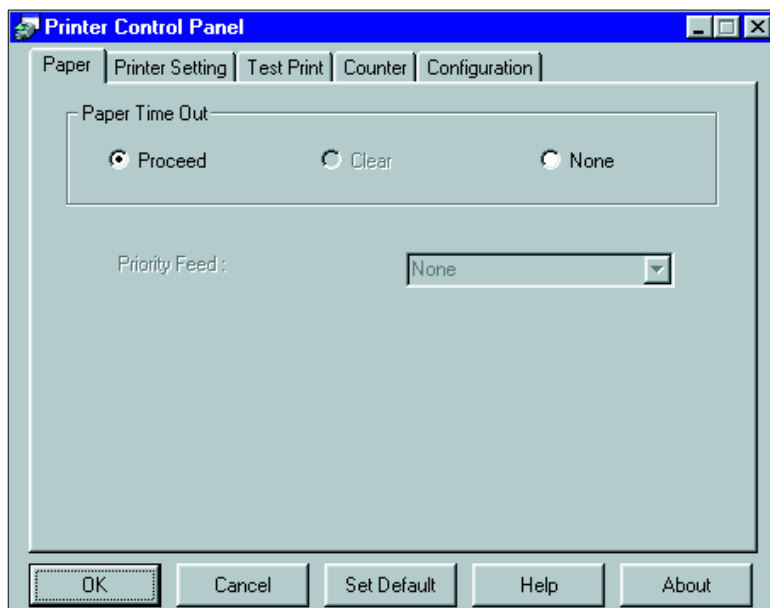
The Status Display appears.



- 3 Click on [PRINTER SETTINGS] or select “Settings – Printer Settings”
The Control Panel appears.



5.3 Paper index card



This index card allows you to:

- define the response in the case of a lack of suitable paper (paper format error),
- define the paper format for paper feed tray 1.

Defining the response in the case of a lack of suitable paper

You can determine how the printer responds in the case of a paper format error.

- Select "Proceed" to continue printing on the paper format already fed into the machine.
- Select "Clear" to automatically cancel the print job when a paper format error is detected.
- Select "None" to switch the printer to stand-by mode.



Switch on "Auto continue"!

On the "Printer setting" index card, the "Detect size error" function allows you to determine whether a print job should be continued after a defined time despite a paper format error.

Specifying a paper format for paper feed tray 1

You can specify whether paper feed tray 1 is to be used as a universal tray or as a tray set to a certain format.

- Select "Multipurpose tray" to be able to load all paper formats supported by paper feed tray 1.
- Select "Fixed size" to specify a certain paper format for paper feed tray 1.

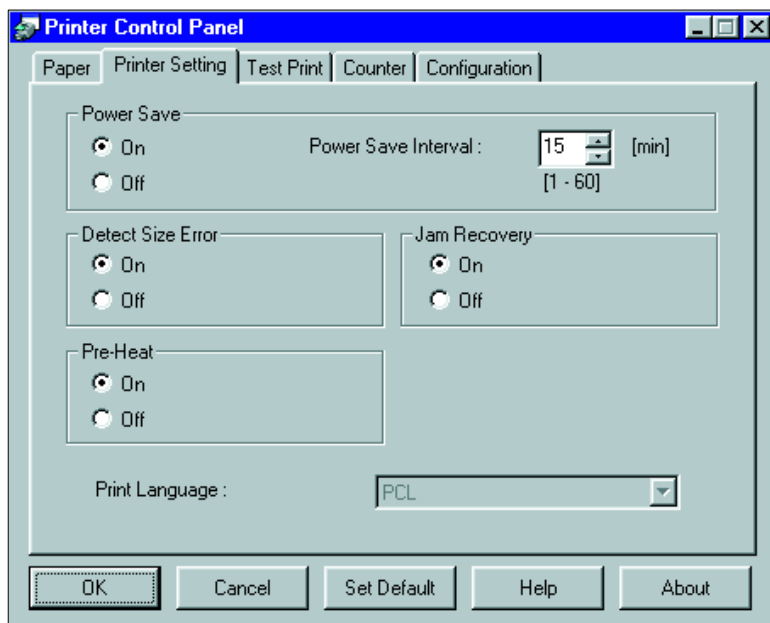
Paper	Size	Envelopes	Size
Letter	8.5 x 11 in.	Env. Monarch	3.875 x 7.5 in.
Legal	8.5 x 14 in.	Env. COM10	4.125 x 9.5 in.
Executive	7.5 x 10.5 in.	Env. DL	110 x 220 mm
A4	210 x 297 mm	Env. C5	162 x 250 mm
A5	148 x 210 mm	Env. B5	176 x 250 mm
JIS B5	182 x 257 mm	J-Post (Postcard)	4 x 5.75 in.



Settings

The settings for paper feed tray 1 on the "Paper" index card may be overridden by the settings of other print applications.

5.4 Printer setting index card



This index card allows you to:

- switch on/off the Power Save mode,
- switch on/off the detection of paper format errors,
- switch on/off the detection of paper misfeeds – Jam Recovery,
- switch on/off the Pre-Heat function,
- specify the print language for communication between printer and computer.

Switching on/off the Power Save mode

In order to save energy, the printer automatically switches to the Power Save mode after a certain period of inactivity. When the printer receives a new command or the control button is pressed while in this mode, the printer automatically switches to the warm-up phase.

- Select "ON" and enter a time period after which the printer should switch to the Power Save mode
- Select "OFF" to deactivate the Power Save mode

Switching on/off the paper format error detection

You can specify whether the printer should respond when the paper fed into the machine is different to that set in the printer driver.

- Select "ON" to detect paper format errors.
- Select "OFF" to ignore paper format errors.

Detecting paper misfeeds – Jam Recovery

This function protects the data in the event of a paper misfeed.

- Select "On" to instruct the printer to save data if a document jams in the printer prior to being printed.
- Select "Off" to suppress the saving of data if a document jams in the printer prior to being printed.

Switching preheat on/off

You can specify whether the fusing unit is to be heated up after receiving a print job.

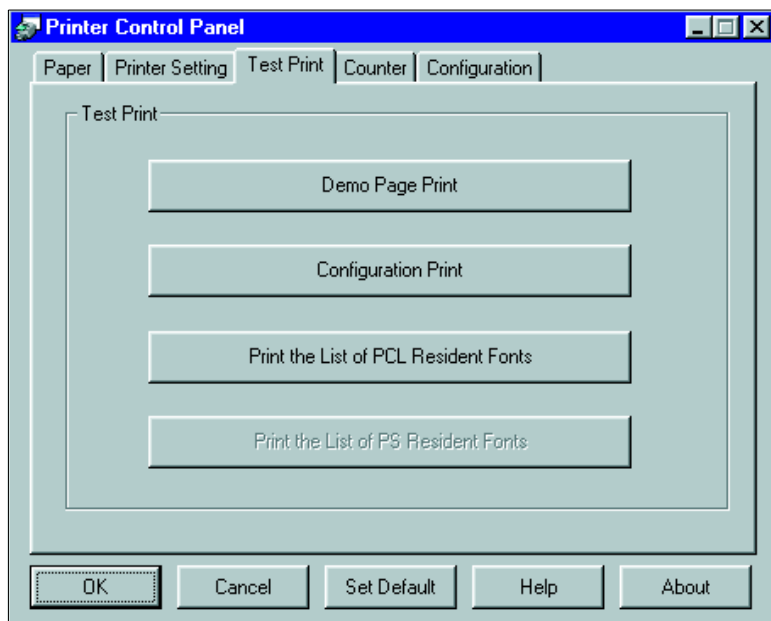
- Select "On" to heat the fusing unit as soon as a print job is sent from the computer.
- Select "Off" to suppress preheating of the fusing unit as soon as a print job is sent from the computer.

Specifying the print language

The print language defines the way in which the computer communicates with the printer.

- Select PCL or PostScript (optional) by clicking in the dropdown list.
- Select “Automatic” to enable the most appropriate print language to be selected automatically.

5.5 Test print index card



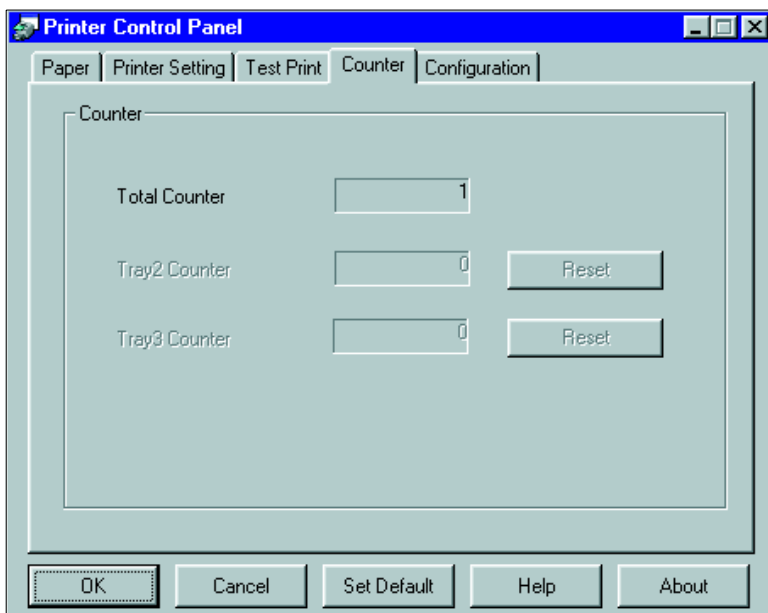
This index card allows you to:

- print out a demonstration page,
- print out a configuration page,
- print out a list of PCL-resident fonts,
- print out a list of PostScript-resident fonts.

The various test prints

Test print	Description
Demonstration page	Prints out a demonstration page with an overview of all printer functions.
Configuration page	Prints out a configuration page with the current printer settings.
List of PCL-resident fonts	Prints out a list of all printer fonts available, with designations and samples.
List of PostScript-resident fonts	Prints out a list of all PostScript fonts available, with designations and samples, provided an optional PostScript ROM-SIMM has been installed.

5.6 Counter index card



This index card allows you to:

- check the status of a counter,
- reset a counter.

Checking the status of a counter

Counter	Description
Total	This indicates the total number of pages printed by the printer. This counter can only be reset by a customer service engineer.
Tray 2	This indicates how many pages have been fed from paper feed tray 2.
Tray 3	This indicates how many pages have been fed from paper feed tray 3.

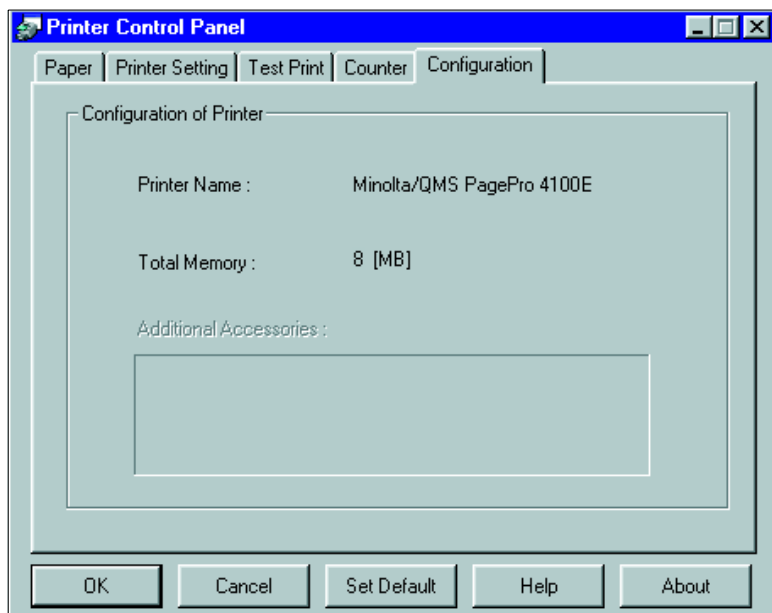
Resetting a counter

This resets the counter status to zero "0".

The "total counter" status can only be reset by a customer service engineer.

- Click on the [RESET] button adjacent the counter you wish to reset.
The associated counter is reset to zero "0".

5.7 Configuration index card



This index card summarizes the most important printer settings for quick reference.

No settings can be altered via this index card.

6 Working with the DOS printer tools

6.1 Using the Status Display

Calling up the Status Display

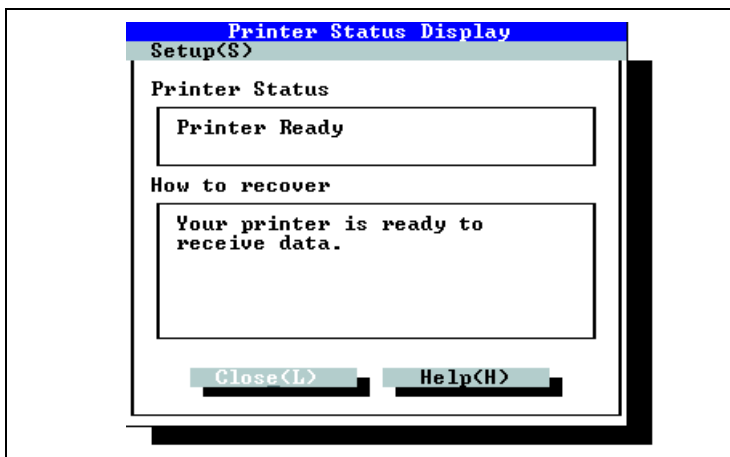
Call up the Status Display in order to check the printer and the progress of print jobs.

- 1 Change to the directory into which the printer driver files were copied upon installation.
Enter, for example: **cd c:\pp4100**

- 2 Enter the following command in order to load the Status Display:
status

The Status Display is loaded into the RAM and can then be called up.

- 3 Press the keys [CTRL]+[ALT]+[R] to call up the Status Display.



Deleting the Status Display from the RAM!

Enter the command **status /d** in order to delete the Status Display from the RAM.

Switching on/off popup messages (Setup menu)

Faults are quickly signalled by means of popup messages. If the printer malfunctions, a dialogue box containing an appropriate message automatically appears on the screen.

- Activate the checkbox "Enable popup" so that popup messages appear automatically on the screen.

Changing the hotkey command for the Status Display (Setup menu)

You can change the key combination for calling up the Status Display.

- Press the desired keys in succession in order to define a new key combination for calling up the Status Display.

Defining popup messages (Setup menu)

You can specify which printer faults cause a popup message to appear on the screen.

- Mark one of the error messages and press ENTER in order to change the status of the error message.

Active = show popup message

Inactive = suppress popup message

6.2 Using the DOS Control Panel

Calling up the Control Panel

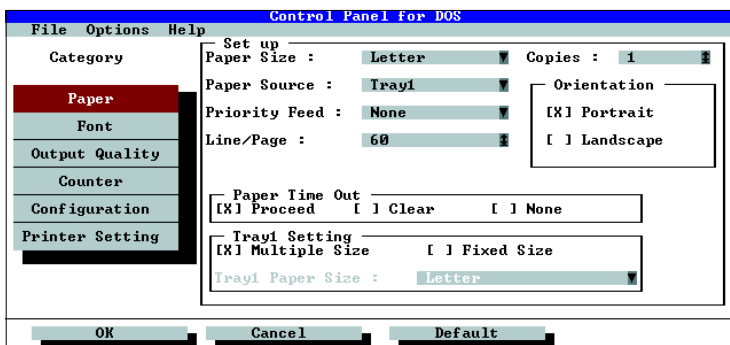
Call up the Control Panel in order to specify the basic settings of the printer.

- 1 Change to the directory into which the printer driver files were copied upon installation.

Enter, for example: **cd c:\pp4100**

- 2 Enter the following command in order to call up the Control Panel:
dospanel

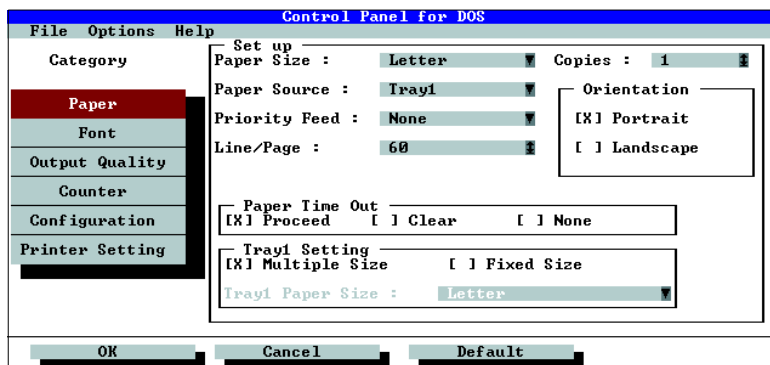
The Control Panel appears.



You wish to close the Control Panel? No Problem!

Press the keys [ALT] + [X] or select "File – Exit" from the menu bar in order to close the Control Panel.

6.3 Paper panel



This panel allows you to:

- specify the paper format,
- specify paper feed from different trays,
- specify the sequence of the paper feed from different trays,
- specify the number of lines printed per page,
- specify the number of copies,
- define the orientation of the paper,
- define the response in the case of format errors,
- define the paper format for paper feed tray 1.

Selecting a paper format

Use “Paper size” to specify the format of the printed page. The various paper sizes supported by your printer are shown in the dropdown list.

The following formats have a fixed definition in the dropdown list:

Paper	Size	Envelopes	Size
Letter	8.5 x 11 in.	Env. Monarch	3.875 x 7.5 in.
Legal	8.5 x 14 in.	Env. COM10	4.125 x 9.5 in.
Executive	7.5 x 10.5 in.	Env. DL	110 x 220 mm
A4	210 x 297 mm	Env. C5	162 x 250 mm
A5	148 x 210 mm	Env. B5	176 x 250 mm
JIS B5	182 x 257 mm	J-Post (Postcard)	4 x 5.75 in.



Not all paper formats available?

If you have selected the optional paper feed tray 2 or 3 under “Paper source”, then not all the paper formats given in the table are available.

Specifying the paper source

Under “Paper source“ you can specify which tray will feed the printer and which type of paper is to be fed in.

Paper source	Description
Automatic	Printing paper is fed from all available trays
Tray 1	Printing paper is fed from tray 1
Tray 2/3*	Printing paper is fed from tray 2/3
Manual	<p>Printing paper is fed into the printer through the manual feed unit.</p> <p>To feed paper manually, place a sheet in the input and press the control button.</p>

* optional paper source units



Not all paper formats available?

If you have selected the optional paper feed tray 2 or 3 under “Paper source“, then not all the paper formats given in the table are available.

Specifying the number of lines printed per page

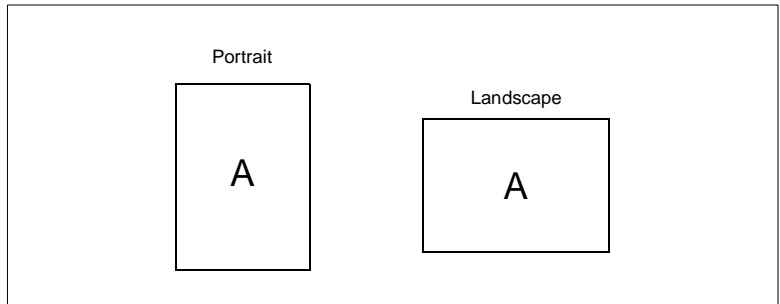
Enter the number of lines to be printed per page in the “Line/Page“ box.

Specifying the number of copies

In the “Copies“ box, specify the number of copies that you wish to print out. You may enter any value between 1 and 999.

Specifying the orientation of the printing paper

Under “Orientation“ you can specify whether your document should be printed in portrait (vertical) or landscape (horizontal) format.



Defining the response to format errors

The “Paper Time Out“ function allows you to define how the printer responds to paper format errors.

- Select “Proceed“ to continue printing on the paper format already fed into the machine.
- Select “Clear“ to automatically cancel the print job when a paper format error is detected.
- Select “None“ to switch the printer to stand-by mode.

Specifying a paper format for paper feed tray 1

You can specify whether paper feed tray 1 is to be used as a universal tray or as a tray set to a certain format.

- Select “Multiple size” to be able to load all paper formats supported by paper feed tray 1.
- Select “Fixed size” to specify a certain paper format for paper feed tray 1.

Paper	Size	Envelopes	Size
Letter	8.5 x 11 in.	Env. Monarch	3.875 x 7.5 in.
Legal	8.5 x 14 in.	Env. COM10	4.125 x 9.5 in.
Executive	7.5 x 10.5 in.	Env. DL	110 x 220 mm
A4	210 x 297 mm	Env. C5	162 x 250 mm
A5	148 x 210 mm	Env. B5	176 x 250 mm
JIS B5	182 x 257 mm	J-Post (Postcard)	4 x 5.75 in.



Settings

The settings for paper feed tray 1 in the “Setup” panel may be overridden by the settings in other printing applications!

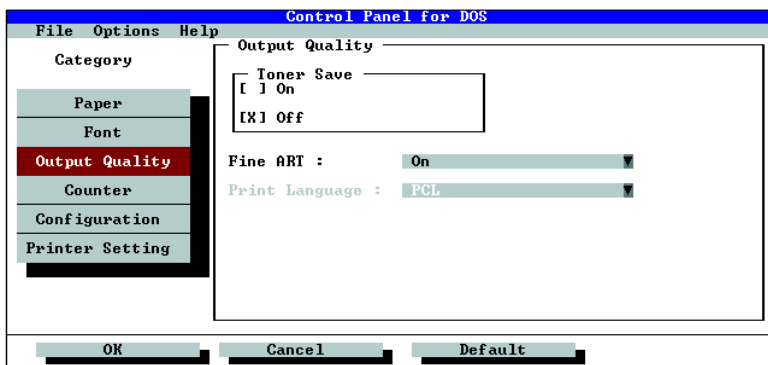
6.4 Font panel



This panel allows you to:

- determine the font (Typeface) which is to be used for the print-out,
- determine the character set (Symbol Set) which is to be used for the print-out,
- determine the font size (Pitch/Point) which is to be used for the print-out.

6.5 Output Quality panel



This panel allows you to:

- switch on/off the Toner Save mode,
- define the resolution for the print-out,
- define the print quality optimization for text and graphics (Fine-Art),
- specify the toner density.

Switching on/off the Toner Save function

You can reduce your printing costs with the “Toner Save” feature.

Text and graphics are printed in grey in Toner Save mode. The purpose of this is to use as little toner as possible. You can save on printing costs by printing rough drafts and other preliminary materials in Toner Save mode.

- Select “ON” to print your documents using a minimal amount of toner.
- Select “OFF” to print your documents with the normal amount of toner.

Fine-ART feature

Use the Fine-ART function to smooth the edges of text and graphics and hence optimize the print quality.

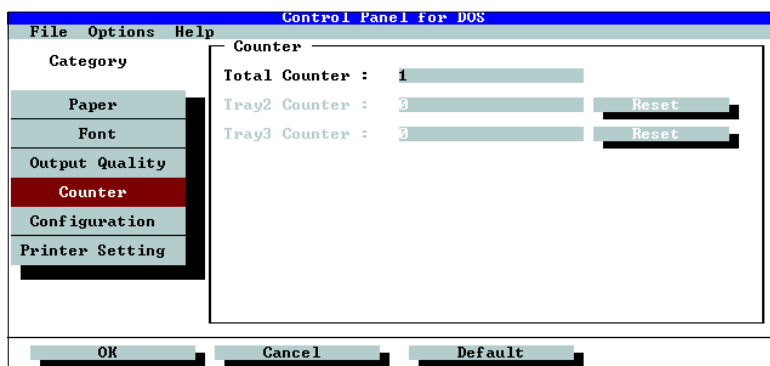
- Select “OFF” to achieve an optimum print quality for photos (raster graphics).
- Select “ON” to optimize the print quality of text and vector graphics in your document.

Print language

The print language defines the way in which the computer communicates with the printer.

- Select “PCL” or “PostScript” (optional) by clicking in the dropdown list.
- Select “Automatic” to enable the most appropriate print language to be selected automatically.

6.6 Counter panel



This panel allows you to:

- check the status of a counter,
- reset a counter.

Checking the status of a counter

Counter	Description
Total Counter	This indicates the total number of pages printed by the printer. This counter can only be reset by a customer service engineer.
Tray2 Counter	This indicates how many pages have been fed from paper feed tray 2.
Tray3 Counter	This indicates how many pages have been fed from paper feed tray 3.

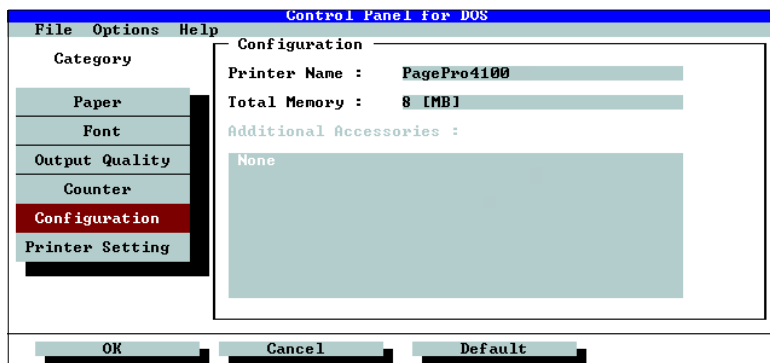
Resetting a counter

This resets the counter status to zero "0".

The "total counter" status can only be reset by a customer service engineer.

- Click on the [RESET] button adjacent the counter you wish to reset.
The associated counter is reset to zero "0".

6.7 Configuration panel

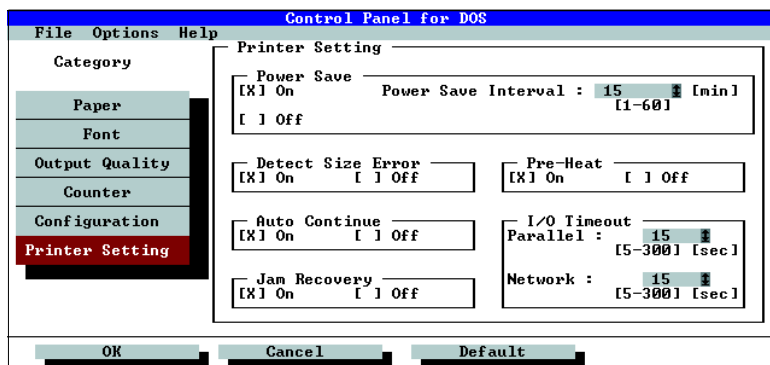


This panel summarizes the most important printer settings for quick reference:

- **Printer Name**
The designation of the printer.
- **Total Memory**
Indicates the total memory available.
- **Additional Accessories**
Indicates presence and status of optional accessories.

No settings can be altered via this panel.

6.8 Printer Setting panel



This panel allows you to:

- switch on/off the Power Save mode,
- switch on/off the detection of paper format errors,
- activate the Pre-Heat function,
- switch on/off the automatic continuation in the case of an error message,
- switch on/off the data protection function in the case of a paper misfeed – Jam Recovery,
- define the input/output timeout.

Switching on/off the Power Save mode

In order to save energy, the printer automatically switches to the Power Save mode after a certain period of inactivity. When the printer receives a new command or the control button is pressed while in this mode, the printer automatically switches to the warm-up phase.

- Select "ON" and enter a time period after which the printer should switch to the Power Save mode.
- Select "OFF" to deactivate the Power Save mode.

Switching on/off the paper format error detection

You can specify whether the printer should respond when the paper fed into the machine is different to that set in the printer driver.

- Select "ON" to detect paper format errors.
- Select "OFF" to ignore paper format errors.

Pre-Heat feature

You can specify whether the fusing unit is to be heated up after receiving a print job.

- Select "ON" to heat the fusing unit as soon as a print job is sent from the computer.
- Select "OFF" to suppress preheating of the fusing unit as soon as a print job is sent from the computer.

Switching on/off the automatic continuation function

A print job is interrupted if the printer signals a format error or memory overflow. The "Auto continue" function enables you to determine whether the print job should continue automatically after a certain time has elapsed despite the presence of an error message.

- Select "ON" and enter a time period after which the a print job should be automatically continued despite the error.
- Select "OFF" to suppress the automatic continuation function.

Detecting paper misfeeds – Jam Recovery

This function protects the data in the event of a paper misfeed.

- Select "ON" to instruct the printer to save data if a document jams in the printer prior to being printed.
- Select "OFF" to suppress the saving of data if a document jams in the printer prior to being printed.

Specifying the input/output timeout

An input/output timeout occurs when the printer cannot detect the end data code of a print job sent from the computer. The print job is automatically cancelled in the case of an input/output timeout.

- Select "Parallel" when the printer is connected to the computer via a parallel interface.
- Select "Network" when the printer is connected to the computer via a Network.

7 Working with the printer

7.1 Please note the following points:

What should I watch out for when loading paper?

To avoid paper misfeeds in the laser printer, please observe the following points:

- Do not use any paper with the following features:
 - Paper that has already been used in a thermal or ink-jet printer.
 - Creased or wavy paper.
 - Paper with a surface that is too smooth, too rough or irregular.
 - Specially coated paper such as carbon paper or paper with an adhesive surface.
 - Paper that is not cut at right-angles.
 - Paper that is held together by glue, adhesive or clips.
 - Paper with labels that detach easily.
 - Warped or curled-up postcards.
- Please note that the stack of paper in the paper tray should not exceed the "max." mark.

What should I watch out for when loading envelopes?

To avoid envelope misfeeds in the laser printer, please observe the following points:

- Do not use self-adhesive envelopes or those with a tear-off strip, closures or a window.
- Place the envelopes in the tray with the flap down and facing to the left.
- Make sure that the flaps are neatly folded back.



Test envelopes before buying large quantities!

Some types of envelopes crease easily when they are run through a printer. Test a type of envelope before purchasing large quantities.

Which sizes of paper can I use?

This printer is only designed for use with the sizes of paper listed below.

Paper size	Paper source		
	Tray 1	Tray 2/3* ¹ (option)	Manual paper feed unit
<i>Standard sizes</i>			
A4 210 × 297 mm	Yes	Yes	Yes
A5 148 × 210 mm	Yes	No	Yes
JIS B5 182 × 257 mm	Yes	Yes	Yes
Letter 8-1/2 × 11 in.	Yes	Yes* ²	Yes
Legal 8-1/2 × 14 in.	Yes	Yes	Yes
Executive 7-1/2 × 10-1/2 in.	Yes	Yes	Yes
<i>Envelopes, postcard and custom sizes</i>			
Envelope DL 110 × 220 mm	Yes	No	Yes
Envelope C5 162 × 250 mm	Yes	No	Yes
Envelope B5 176 × 250 mm	Yes	No	Yes
Envelope COM10 4-1/8 × 9-1/2 in.	Yes	No	Yes
Envelope Monarch 3-7/8 × 7-1/2 in.	Yes	No	Yes
J-Post (Postcard) 4 × 5-3/4 in.	Yes	No	Yes
Custom Size 3-3/8 to 8-1/2 in. × 3-1/2 to 14 in. 85 to 216 mm × 90 to 356 mm	Yes	No	Yes

* 1. Each of the 5 cassettes of Tray 2/Tray 3 support one of the 5 types of paper that are compatible with this printer.

2. Letter is standard cassette size for the second/third paper feed tray.

What types of paper can I use?

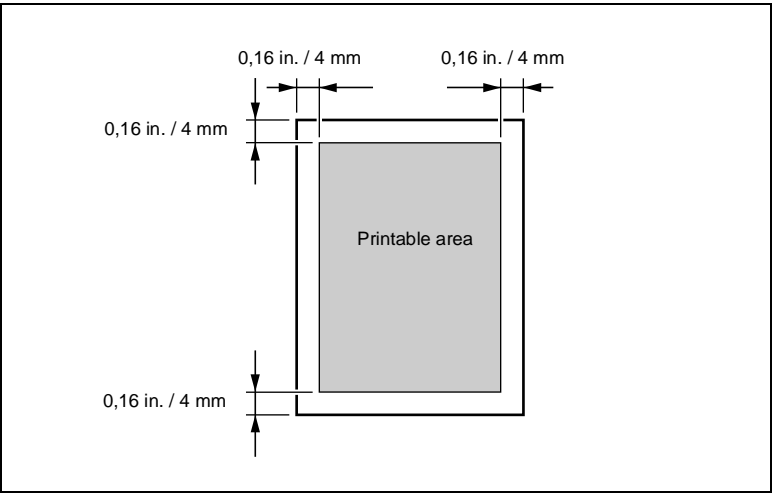
This printer is only designed for use with the types of paper listed below.

Paper media	Paper source		
	Tray 1	Tray 2/3 (option)	Manual paper feed unit
<i>standard media:</i>			
Plain paper weight: 16 to 24 lbs. / 60 to 90g/m ²	Yes	Yes	Yes
Recycled paper weight: 16 to 24 lbs. / 60 to 90g/m ²	Yes	Yes	Yes
<i>special media:</i>			
Transparent film	Yes	No	Yes
Labels	Yes	No	Yes
Letterhead	Yes	No	Yes
Envelopes	Yes	No	Yes
Postcards	Yes	No	Yes
Card or thick paper 24 to 43-1/4 lbs. / 90 to 163 g/m ²	Yes	No	Yes

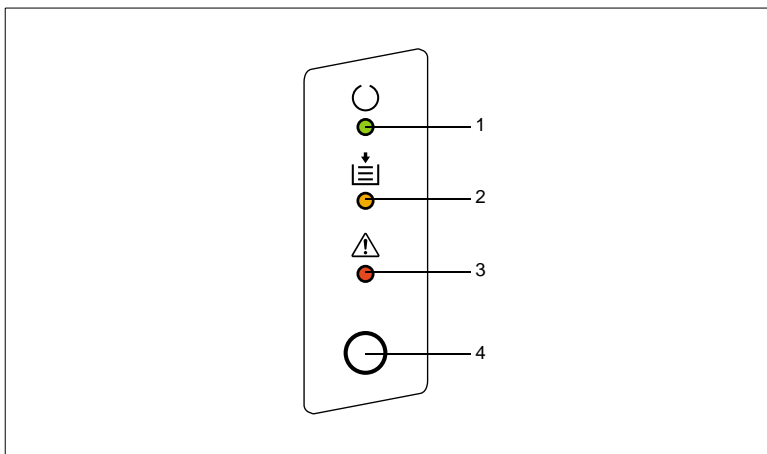


Note
Special media is not supported for duplex printing.

Printable area



7.2 Using the control button



The control panel has three lamps and one button.

No.	Description	No.	Description
1	Stand-by lamp (green)	3	Fault (red)
2	Paper empty (orange)	4	Control button

The control button allows you to:

- print out the configuration page,
- continue a print job after an error message.

Printing out the configuration page

Print out the configuration page in order to check the configuration of your printer.

- 1 Make sure that:
 - the "Fault" and "Paper" lamps are not on, and
 - the "Stand-by" lamp is on constantly.

- 2 Press the control button briefly.

The configuration page is now printed out.

Continuing a print job after an error message

Continue the print job after the following error messages:

- ✓ when the print job is too complex and the memory capacity of the printer is inadequate;
- ✓ when there is no more paper in the feed trays;
- ✓ when paper of a different format to that set in the printer driver was fed into the printer.

- 1 Make sure that one of the above errors has occurred.
- 2 Press the control button in order to operate the page feed.

The print job continues.



Check the print-out!

If you have continued a print job after an error message, then check the print-out. It is often the case that not all pages required are printed out.

7.3 Loading paper

Loading paper into paper feed tray 1

Paper feed tray 1 has a capacity of 150 sheets of plain paper.

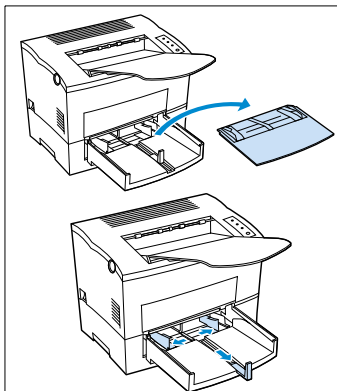
Please note the following points:

- ✓ Only refill the tray when it is completely empty.
- ✓ Refer to the advice on loading paper, see page 7-6.

- 1 Remove the cover to paper feed tray 1.

? *Using a large paper format?*

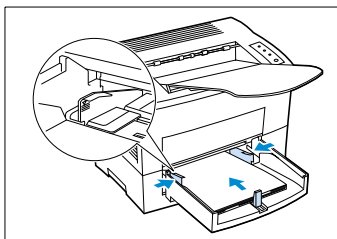
- Then extend the paper support.



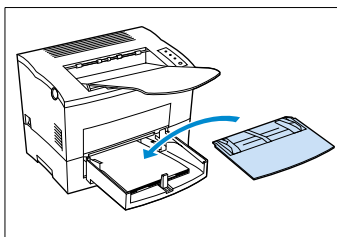
- 2 Place the paper between the paper guides. Slide the guides up to the stack of paper.

? *How many sheets may I place in the cassette?*

- The stack of paper should not rise above the "max." mark.



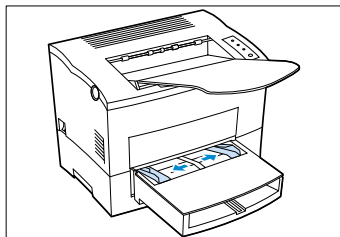
- 3 Refit the cover to paper feed tray 1.



Loading paper into the manual feed unit

When using the manual feed unit, sheets and envelopes must be fed in one at a time.

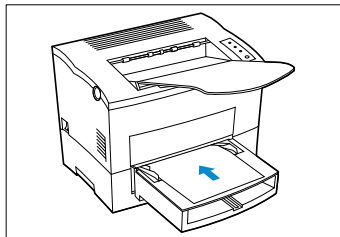
- 1 Make sure that the cover to paper feed tray 1 is fitted properly.
- 2 Slide the guides outwards as far as they will go.



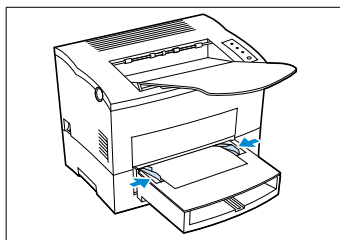
- 3 Place the paper between the guides with the side to be printed facing upwards.

? *How are envelopes fed in?*

→ Envelopes are loaded with the flap down and facing to the left.



- 4 Slide the guides up to the paper.



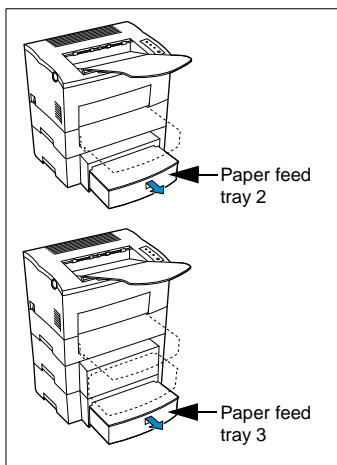
Loading paper into paper feed tray 2/3

Paper feed tray 2/3 has a capacity of 500 sheets of plain paper.

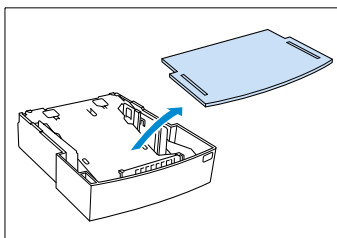
Please note the following points:

- ✓ Paper feed trays 2/3 can only be used for A4, JIS B5, Legal, Letter and Executive formats. Optional cassettes are available for each format. Paper feed tray 2 is supplied with a cassette for Letter format as standard.
- ✓ Paper can only be loaded lengthwise in paper feed tray 2/3.
- ✓ Do not refill the cassette while paper is still being fed from feed tray 2/3 .
- ✓ Refer to the advice on loading paper, see page 7-6.

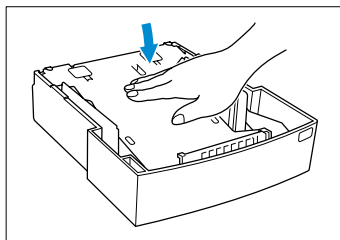
- 1 Pull the cassette out of paper feed tray 2/3 until you feel a resistance. Then lift the front of the cassette slightly before continuing to withdraw the cassette completely.



- 2 Remove the cassette cover.



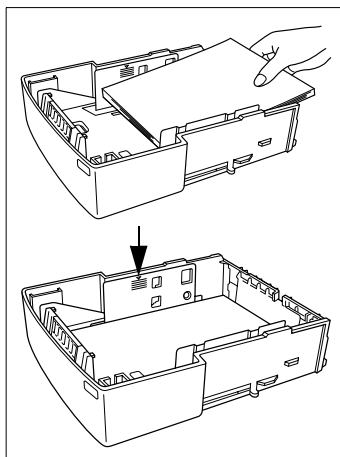
- 3 Press down the paper lifting plate until it locks.



- 4 Place the paper in the cassette.

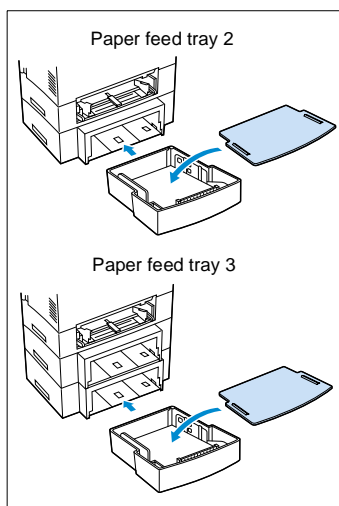
? *How many sheets may I place in the cassette?*

- The stack of paper should not rise above the "max." mark.



- 5 Refit the cassette cover.

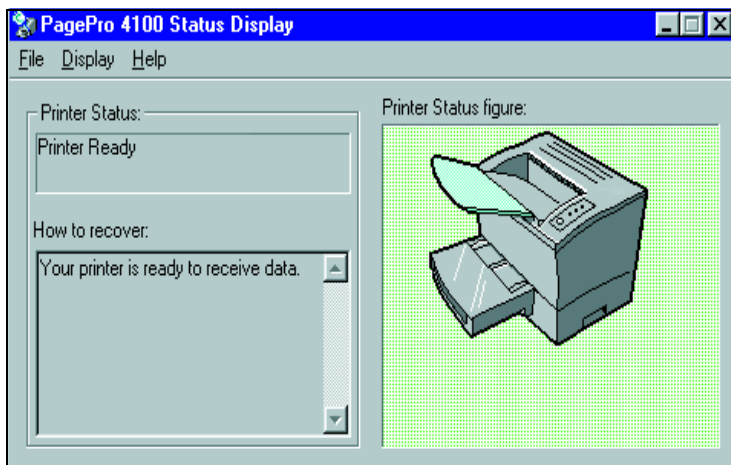
- 6 Slide the cassette back into paper feed tray 2/3.



7.4 Monitoring print jobs with the Status Display

The Status Display allows you to monitor the printer and the progress of current print jobs.

- When the background to the printer graphic is green, the printer is in Stand-by mode or a print job is running normally.
- When the background to the printer graphic is red, there is a current error and the print job has been interrupted. The status of the printer and the error message are shown in the dialogue boxes on the left.



8 Installing optional accessories

The optional accessories include:

- paper feed tray 2/3 (each 500 sheets),
- duplex unit,
- SDRAM-SIMM memory expansion module,
- PostScript ROM-SIMM memory expansion module, and
- network card.

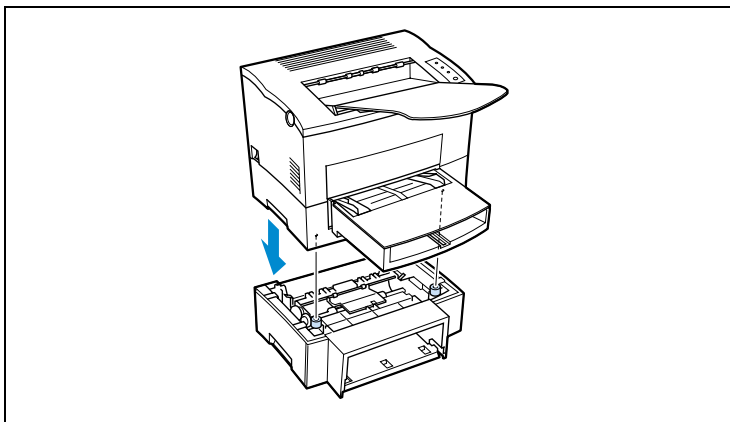
8.1 Installing paper feed tray 2/3

Paper feed tray 2/3 can hold up to 500 sheets of plain paper. It is supplied with a Letter cassette as standard. Further cassettes in the formats A4, JIS B5, Legal and Executive are available as optional accessories. Please contact your technical customer service centre for further details.

The installation of paper feed trays 2 and 3 is identical. The figures show the installation of tray 2.

- 1 Take the parts out of the box and remove the plastic packagings.
- 2 Remove all packaging materials and adhesive tape.
- 3 Remove the plastic pad from the feed tray.
- 4 Switch the printer OFF and also disconnect the power cable and the interface cable from the printer.

- 5 Mount the printer on the paper feed tray so that the locating pins of the feed tray engage with the holes in the printer.

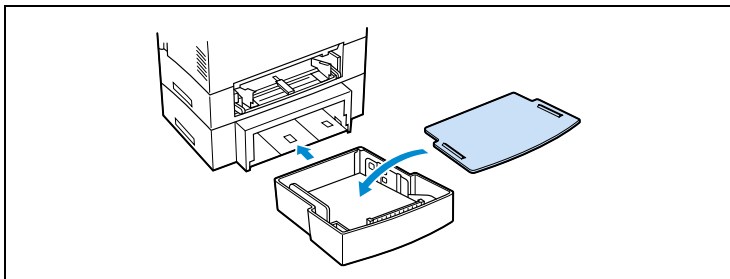


- 6 Fill the cassette with paper, see .page 7-8.

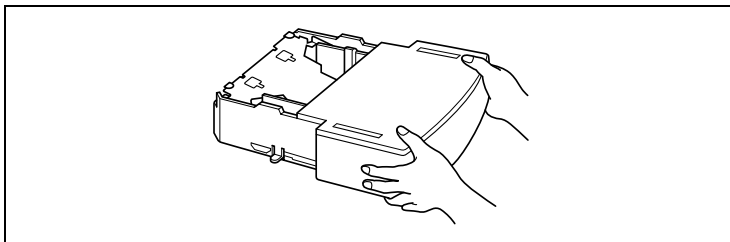
? *How many sheets may I place in the cassette?*

→ The stack of paper should not rise above the "max." mark.

- 7 Refit the cassette cover.

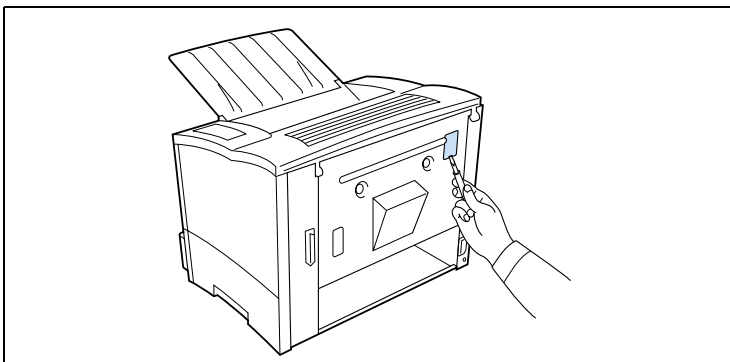


- 8 Slide the cassette back into the feed tray.

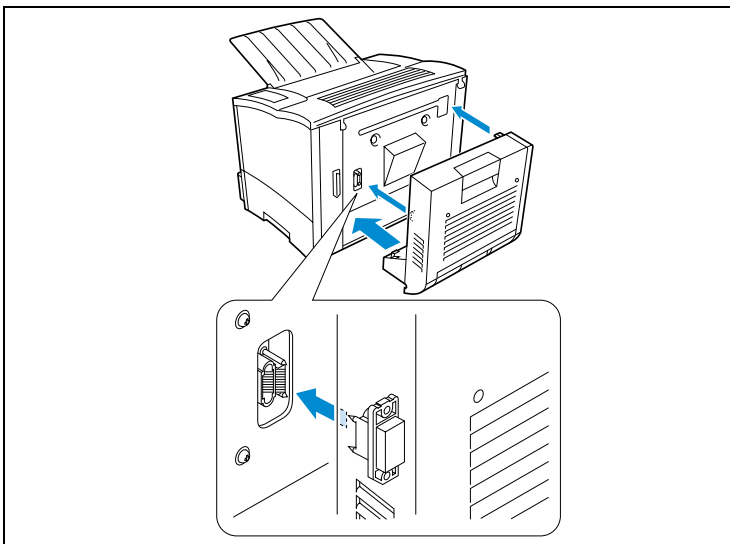


8.2 Installing the duplex unit

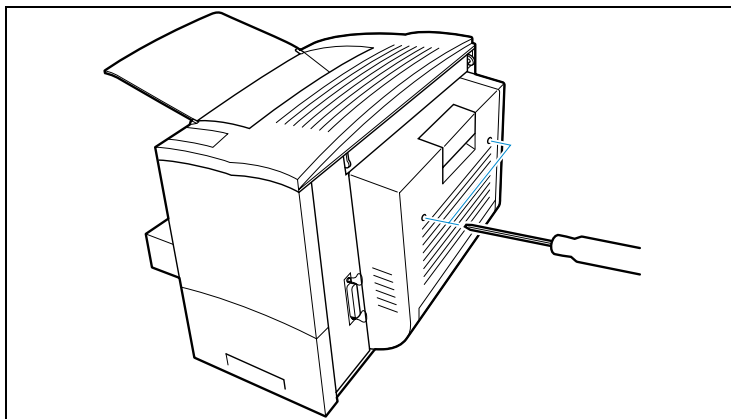
- 1 Switch off both printer and computer.
- 2 Take the duplex unit out of the box and remove all the plastic and other packagings.
- 3 Remove the flat cover at the rear of the printer using a screwdriver or other similar tool.



- 4 Attach the duplex unit as shown in the adjacent figure.



- 5 Hold the duplex unit with your hand until you have screwed the unit into position on the printer.



- 6 Connect the power cable to the printer, see page 2-12, and switch on the printer, see page 2-13.
- 7 Print out a configuration page in order to check whether "Duplex unit" is listed under "Printer Configuration", see page 2-14.

8.3 Installing a SIMM memory module

This printer is equipped with 8 MB of memory capacity as standard. The memory capacity can be expanded to max. 104 MB with commercially available SDRAM-SIMM memory modules. Memory modules of the following sizes may be used: 8, 16 and 32 MB.



CAUTION

Your SIMM memory module could suffer irreparable damage!

SIMM modules are very sensitive. Handling them improperly can result in damage to the module that will render it unusable.

- Before you unpack the module, touch a metal part of the printer to cause static electricity to discharge from you.
- Hold the module only by the edges.
- Avoid touching the connections.
- Always place the module on an anti-static mat when working with it.
- Do not touch any printed circuit boards in the printer.



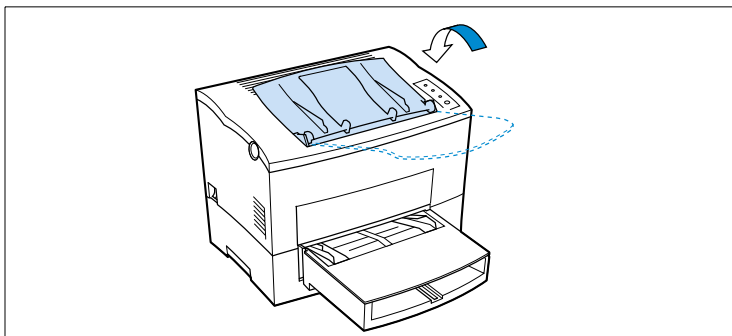
DANGER

Risk of electric shock!

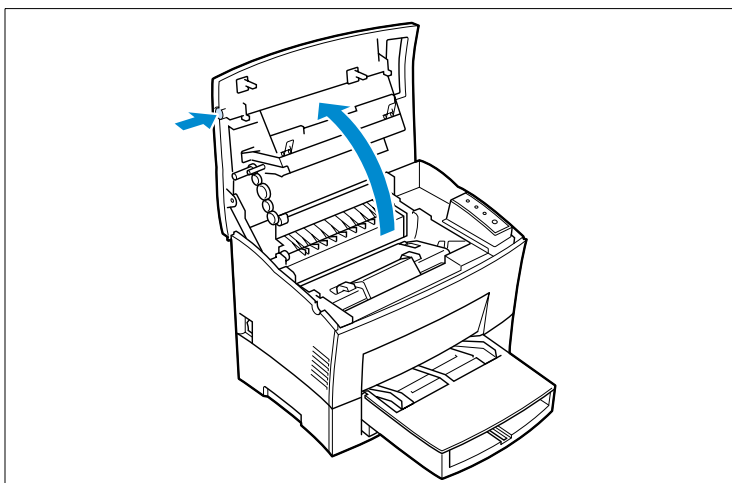
The printer contains electrical parts.

- When installing a memory module, follow the instructions exactly.
- Always switch the printer OFF and unplug it from the power supply.
- Only remove the covers which are specifically referred to in the step-by-step instructions.

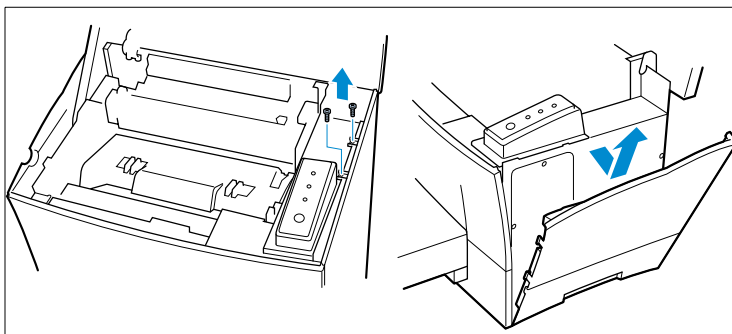
- 1 Close the output tray.



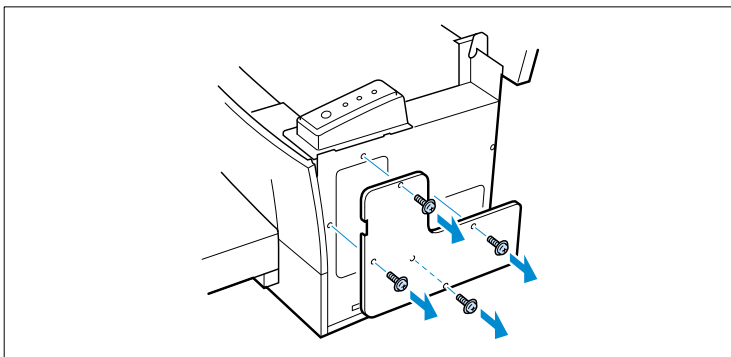
- 2 Press the top cover release button and open the cover.



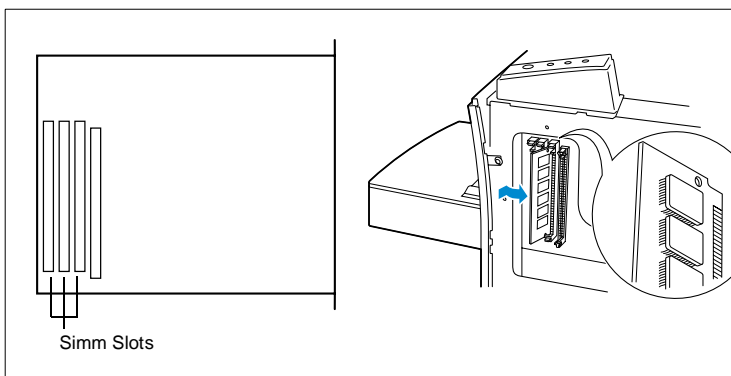
- 3 Remove the two screws from the side cover and take off the cover.



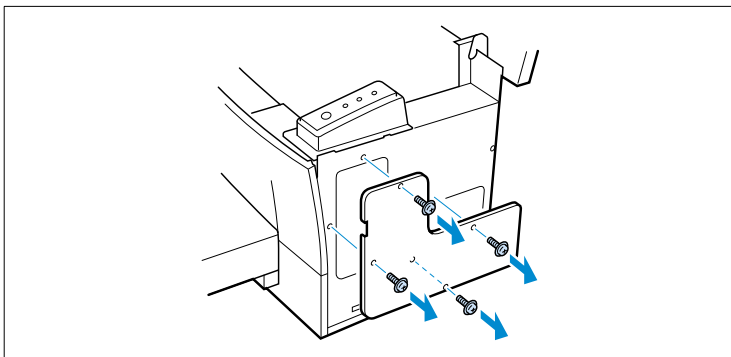
- 4 Remove the internal cover in order to gain access to the motherboard.



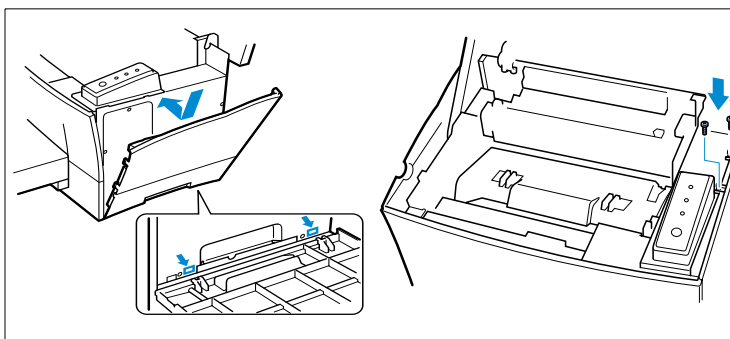
- 5 Insert the memory module into one of the three slots. Press it carefully onto the socket until it clips into place.



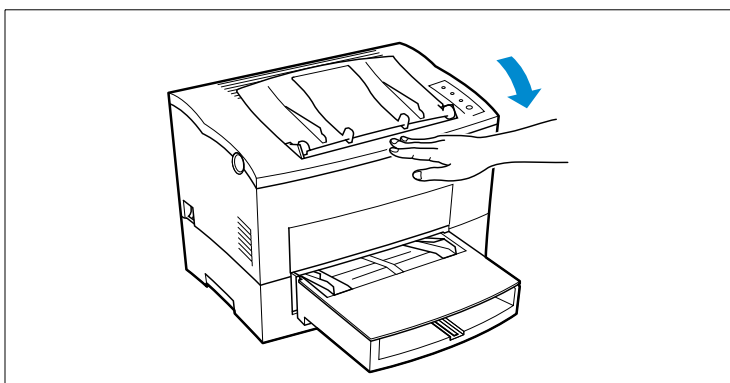
- 6 Refit the internal cover.



- 7 Refit the side cover and secure it with the two screws.



- 8 Close the printer cover and fold out the paper output tray.



- 9 Print out a configuration page for the printer, see page 2-14.

The new total memory capacity should be shown correctly.

? *What if the total amount of memory is not displayed correctly?*

→ Check whether the modules were installed correctly.

→ Check the setting in the printer driver.



You wish to remove a memory module?

To remove a module, press the tabs on both sides of the installation slot outwards. This will release the module and allow you to take it out.

8.4 Installing a PostScript ROM-SIMM memory module

This printer is equipped with one slot for an optional PostScript ROM-SIMM memory module as standard.



CAUTION

Your PostScript ROM-SIMM memory module could suffer irreparable damage!

PostScript ROM-SIMM modules are very sensitive. Handling them improperly can result in damage to the module that will render it unusable.

- Before you unpack the module, touch a metal part of the printer to cause static electricity to discharge from you.
- Hold the module only by the edges.
- Avoid touching the connections.
- Always place the module on an anti-static mat when working with it.
- Do not touch any printed circuit boards in the printer.



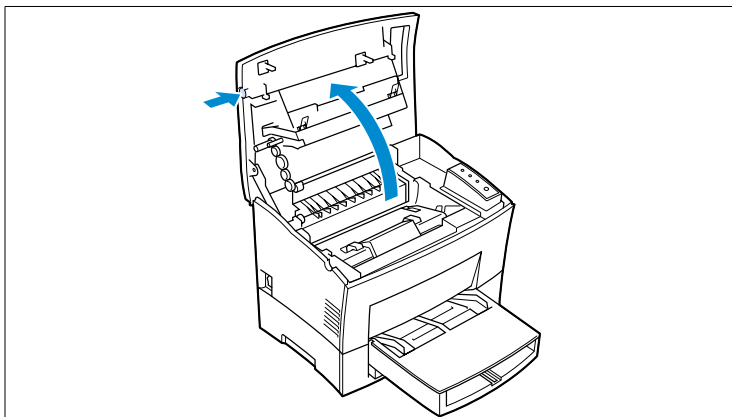
DANGER

Risk of electric shock!

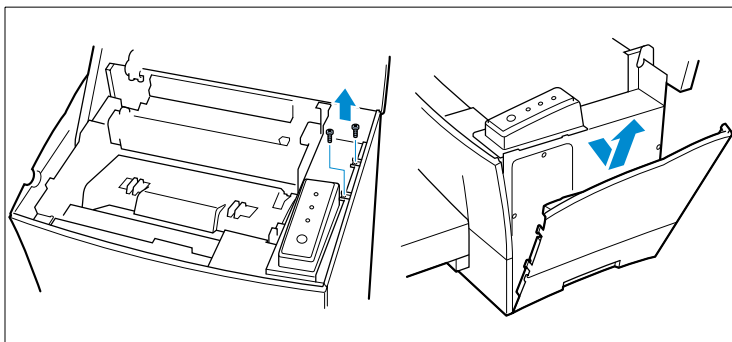
The printer contains electrical parts.

- When installing a memory module, follow the instructions exactly.
- Always switch the printer OFF and unplug it from the power supply.
- Only remove the covers which are specifically referred to in the step-by-step instructions.

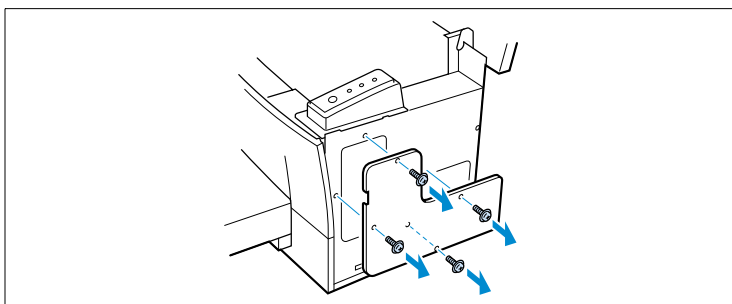
- 1 Close the output tray.
- 2 Press the top cover release button and open the cover.



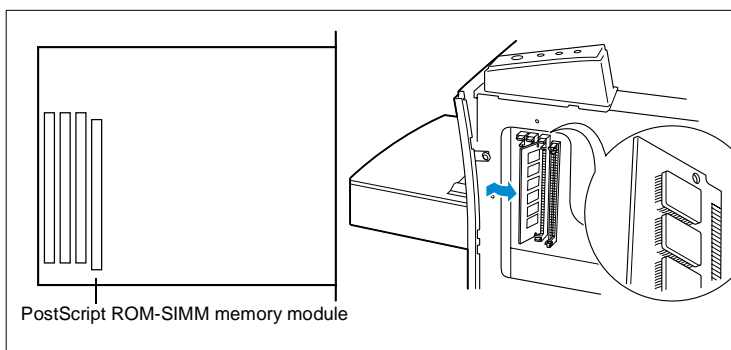
- 3 Remove the two screws from the side cover and take off the cover.



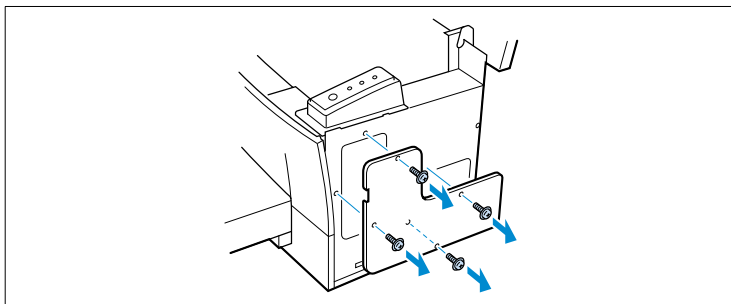
- 4 Remove the internal cover in order to gain access to the motherboard.



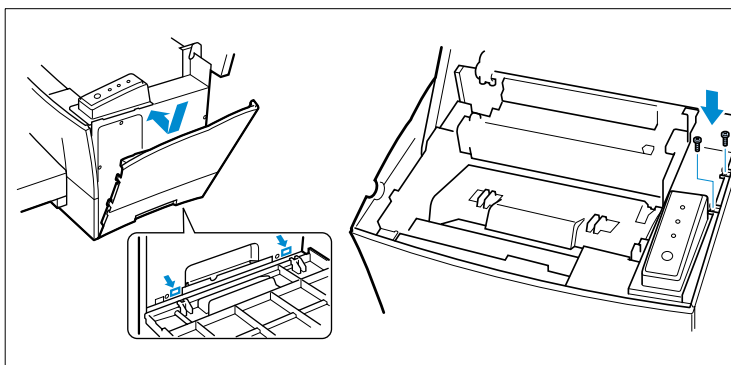
- 5 Insert the memory module into the slot provided for it. Press it carefully onto the socket until it clips into place.



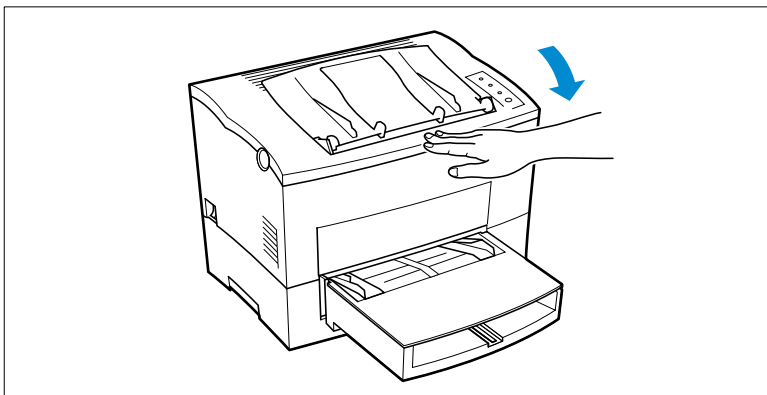
- 6 Refit the internal cover.



- 7 Refit the side cover and secure it with the two screws.



- 8 Close the printer cover and open the paper output tray.



- 9 Print out a configuration page for the printer, see page 2-14.

The new total memory capacity should be shown correctly.

? *What if the total amount of memory is not displayed correctly?*

- Check whether the modules were installed correctly.
- Check the setting in the printer driver.



You wish to remove a memory module?

To remove a module, press the tabs on both sides of the installation slot outwards. This will release the module and allow you to take it out.

8.5 Installing a network card

The printer supports 10BaseT/100BaseTX, 10BaseT/10Base2 and Token Ring network cards.



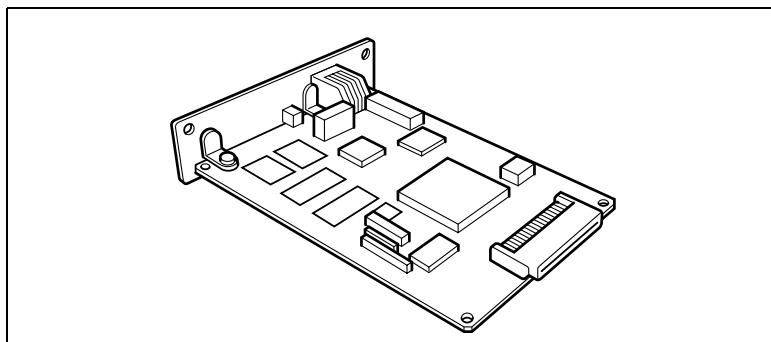
CAUTION

Your network card could suffer irreparable damage!

The network card is very sensitive. Handling it improperly could result in damage to the network card that will render it unusable.

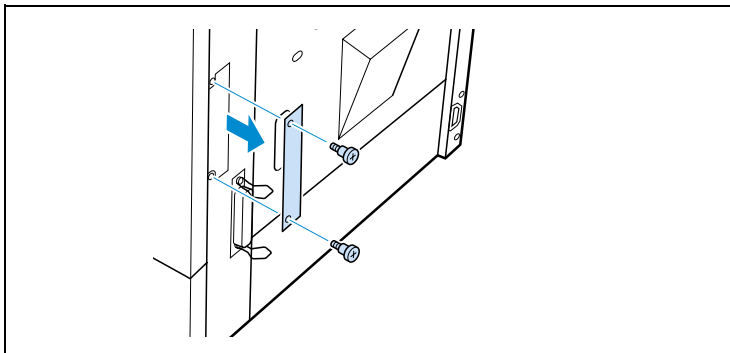
- Before you unpack the network card, touch a metal part of the printer to cause static electricity to discharge from you.
- Hold the network card only by the edges.
- Avoid touching the connections and printed surfaces.
- When working with the network card, always place it on an anti-static mat.

Detailed information on the network card can be found in the associated user's manual.

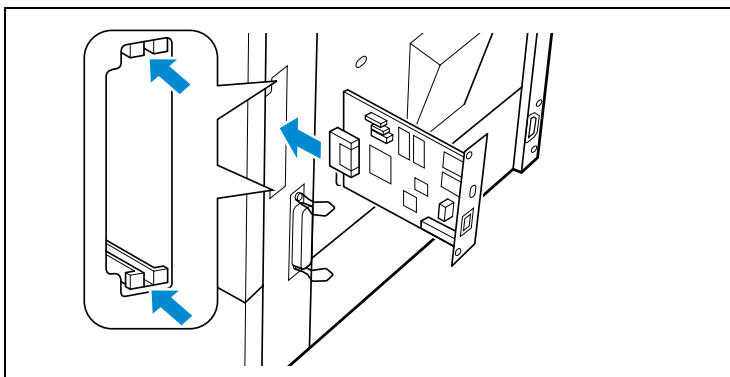


The figure shows the 10BaseT/100BaseTX network card.

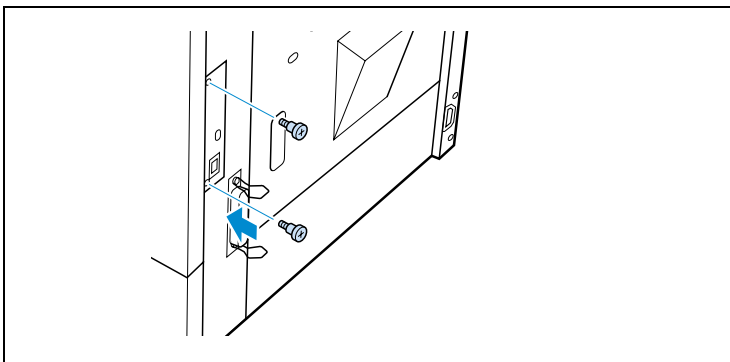
- 1 Switch the printer OFF and also disconnect the power cable and the interface cable from the printer.
- 2 Take the network card out of the box and remove all the plastic and other packagings.
- 3 Remove the two screws from the cover at the rear of the printer.



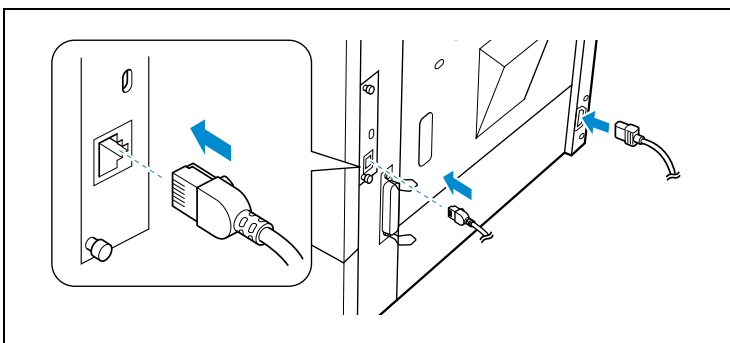
- 4 Insert the network card into the printer as shown in the figure.



- 5** Secure the network card with the same screws that were used originally to secure the cover.



- 6** Connect the network cable to the network card.



- 7** Continue as described in the user's manual supplied with the network card.

9 Caring for and maintaining your printer



CAUTION

You could damage the unit by using incorrect accessories and parts!

If you use the accessories and parts of manufacturers other than Minolta/QMS, we cannot guarantee that the laser printer will operate properly.

- Use only Minolta/QMS accessories and parts unless specified otherwise.



CAUTION

Toner poses a health hazard!

Toner is harmful if swallowed.

- If you swallow toner, consult a doctor immediately.
- If you get toner on your hands, wash them immediately with cold water and soap.

9.1 Cleaning the printer

Clean the printer at regular intervals to prevent dust, dirt and paper residue from accumulating in and on the printer.

Cleaning the case

- 1 Switch the printer OFF and unplug the power cable.
- 2 Wipe the printer case with a soft cloth. You may moisten the cloth with a little neutral household cleaner if you wish.

Cleaning the paper feed roller

Clean the paper feed roller if paper feed problems occur frequently.



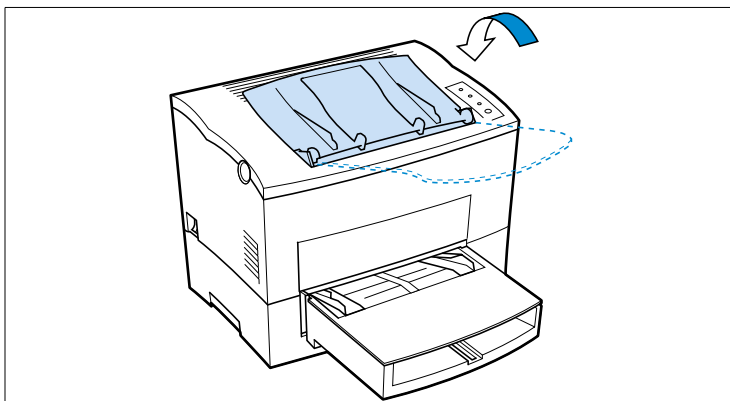
CAUTION

The fusing unit can become very hot!

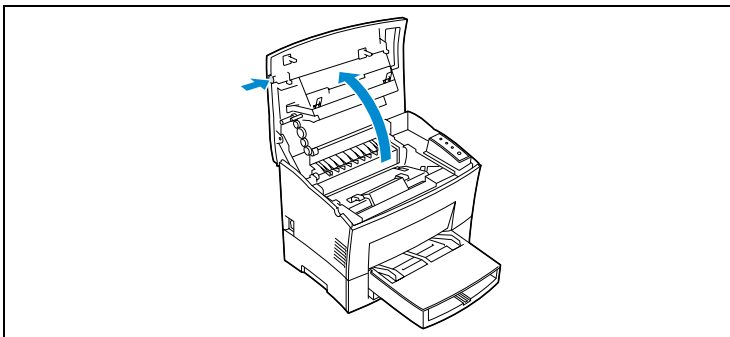
The fusing unit, which is located beneath the top cover, can become very hot when the printer is in operation.

- To prevent injuries, avoid contact with this area.
- After switching off the printer, wait at least 10 minutes before cleaning the inside of the printer.

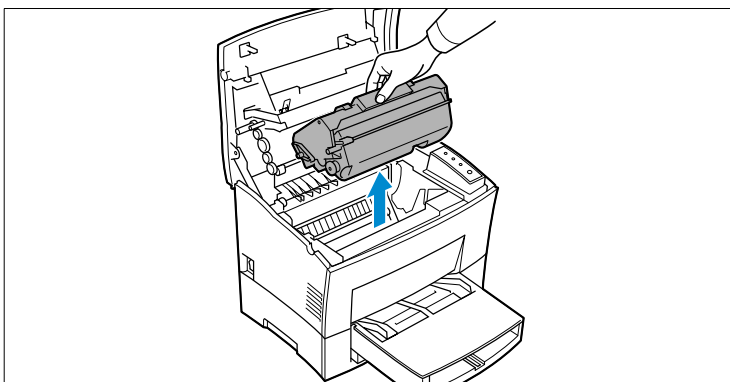
- 1 Switch the printer OFF and unplug the power cable.
- 2 Close the output tray.



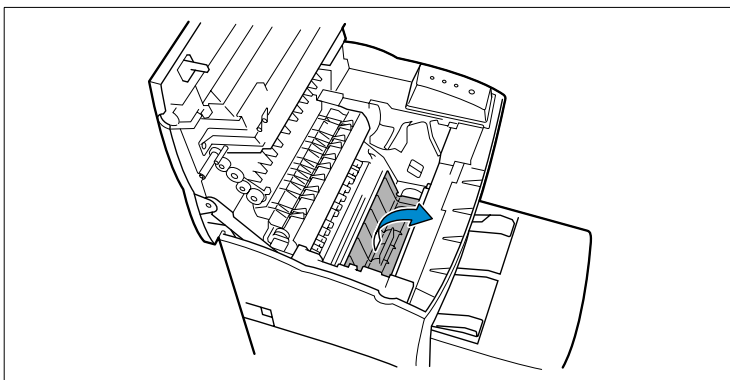
- 3** Press the top cover release button and open the cover.



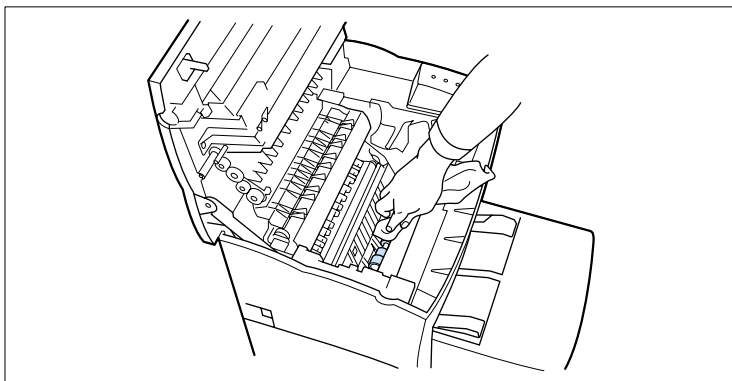
- 4** Lift out the imaging cartridge.



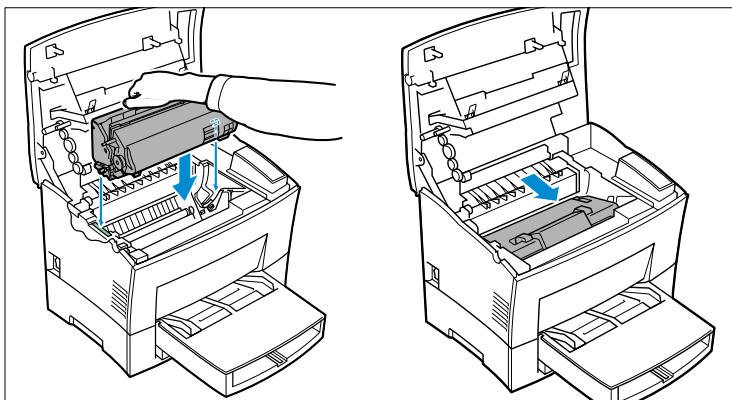
- 5** Fold back the cover over the paper feed roller.



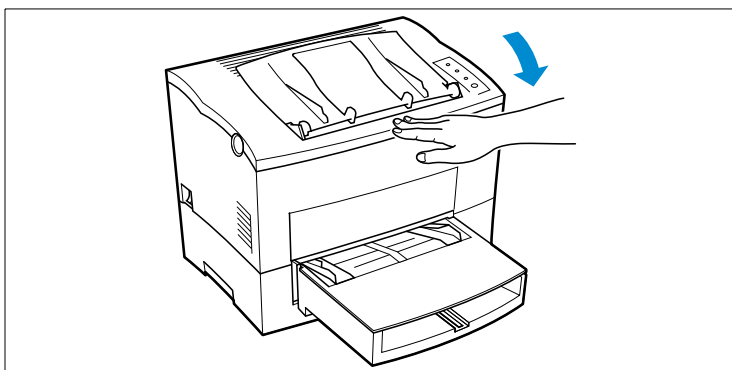
- 6 Wipe the paper feed roller with a soft, dry cloth.



- 7 Re-insert the imaging cartridge.



- 8 Close the printer cover and open the paper output tray.



9.2 Replacing the imaging cartridge

Change the imaging cartridge when it is empty or the print-outs are too light.

The imaging cartridge has a capacity of about 9000 A4 pages or letters with about 5% toner coverage. The imaging cartridge supplied with the printer has a capacity of, on average, 5000 A4 pages or letters with about 5% toner coverage.



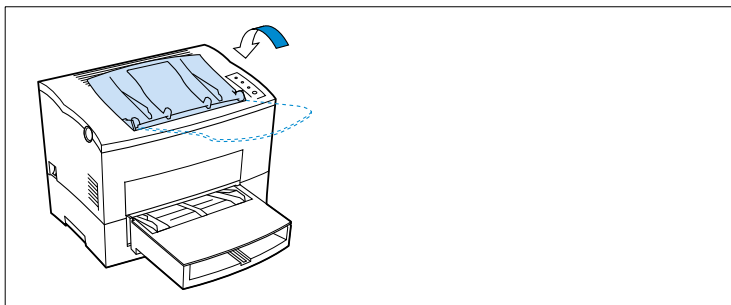
CAUTION

The fusing unit can become very hot!

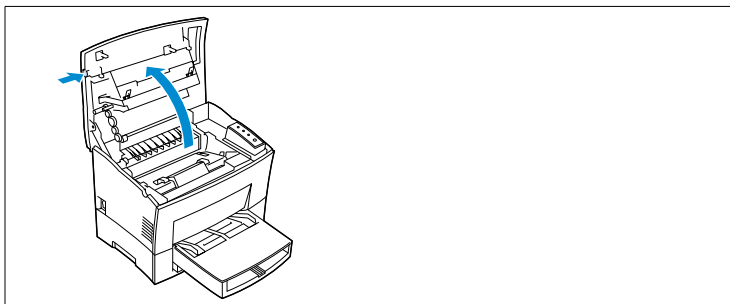
The fusing unit, which is located beneath the top cover, can become very hot when the printer is in operation.

→ To prevent injuries, avoid contact with this area.

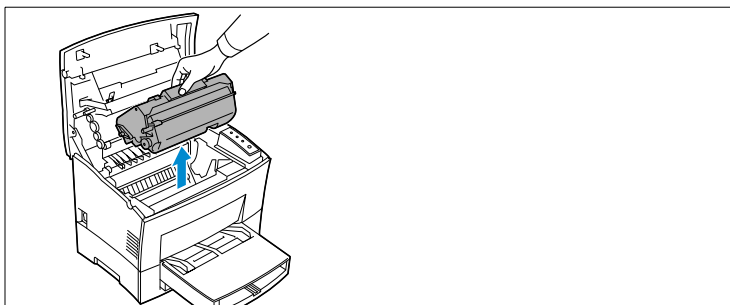
- 1 Switch the printer OFF and unplug the power cable.
- 2 Close the output tray.



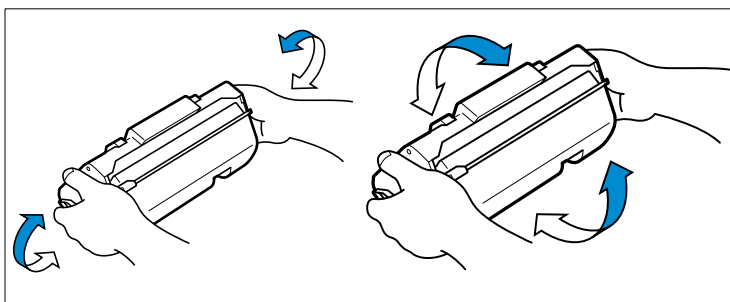
- 3 Press the top cover release button and open the cover.



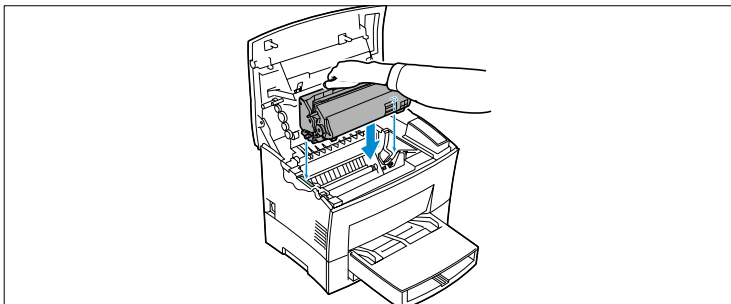
- 4 Lift out the used imaging cartridge and dispose of it in a way which does not have any negative environmental impact.



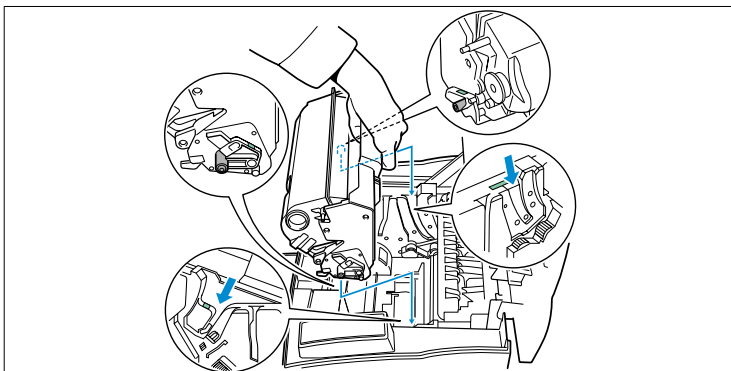
- 5 Take the new imaging cartridge out of the box, hold it firmly with both hands and shake it to break down any lumps of toner that may have formed.



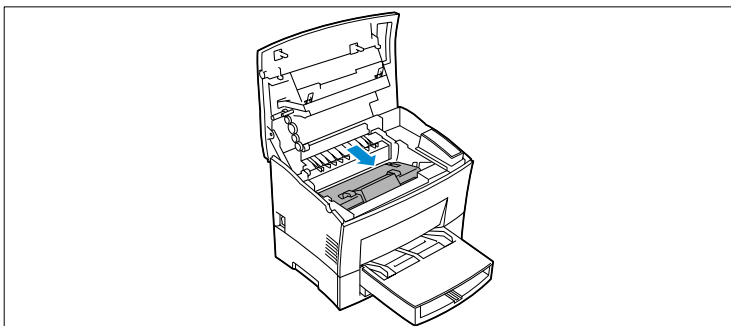
- 6** Place the new imaging cartridge in the printer. In doing so, match up the coloured strips and numbers on the cartridge with those on the printer.



- 7** Guide the new imaging cartridge into the printer as shown in the figure.



- 8** Make sure that the new imaging cartridge is correctly seated in the guides and is clipped in place.



- 9** Close the printer cover and open the output tray.

10 Troubleshooting

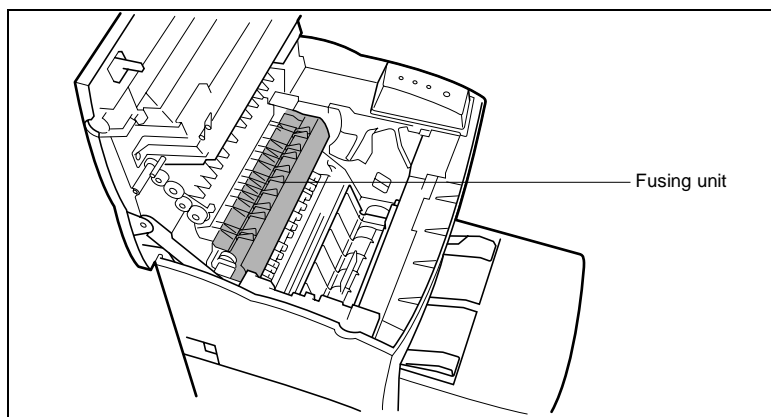


CAUTION

The fusing unit can become very hot!

The fusing unit, which is located beneath the top cover, can become very hot when the printer is in operation.

→ To prevent injuries, avoid contact with this area.

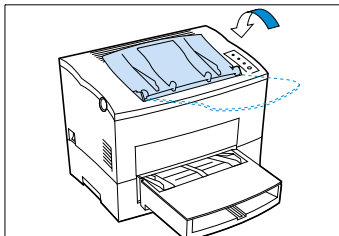


10.1 Clearing paper misfeeds

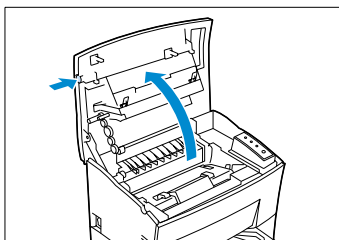
Clearing paper misfeeds at the imaging cartridge

1 Switch the printer OFF.

2 Close the output tray.

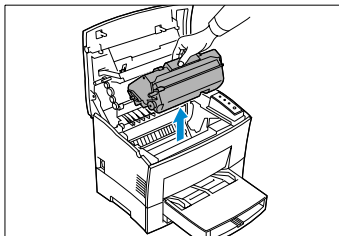


3 Press the top cover release button and open the cover.

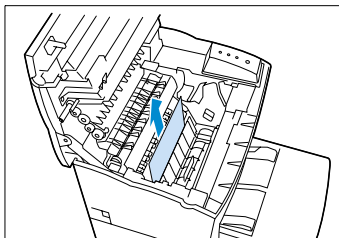


4 Lift out the imaging cartridge.

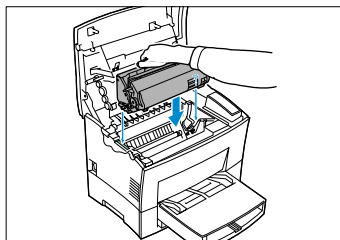
5 Wrap the the imaging cartridge in a cloth to protect it against exposure to light.



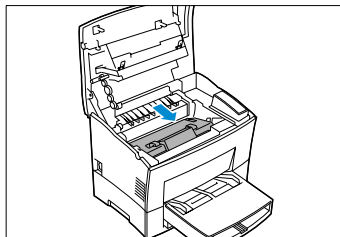
6 Carefully pull the misfed sheet(s) out of the printer.



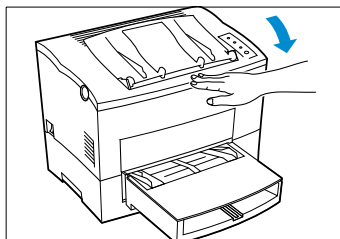
- 7 Re-insert the imaging cartridge.



- 8 Move the imaging cartridge in the direction shown by the arrow until it clips into place.



- 9 Close the printer cover and open the paper output tray.



Clearing a paper misfeed at the fusing unit



CAUTION

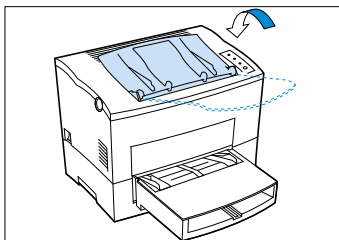
The fusing unit can become very hot!

The fusing unit, which is located beneath the top cover, can become very hot when the printer is in operation.

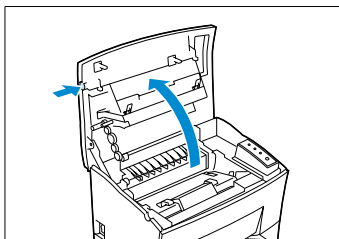
→ To prevent injuries, avoid contact with this area.

1 Switch the printer OFF.

2 Close the output tray.

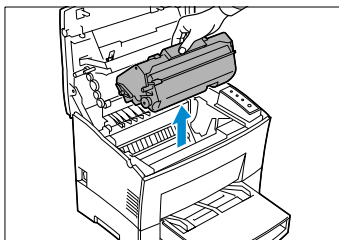


3 Press the top cover release button and open the cover.



4 Lift out the imaging cartridge.

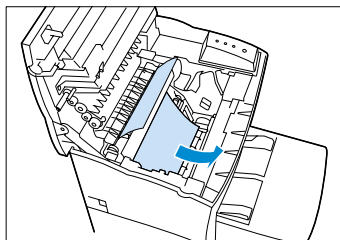
5 Wrap the the image transfer roller?? in a cloth to protect it against exposure to light.



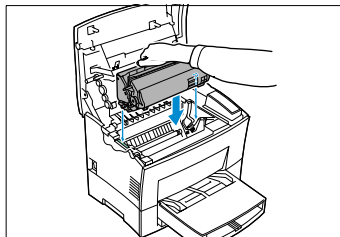
- 6 Hold the bottom edge of the misfed sheet and carefully pull it out of the printer.

? *The bottom edge of the paper is not visible?*

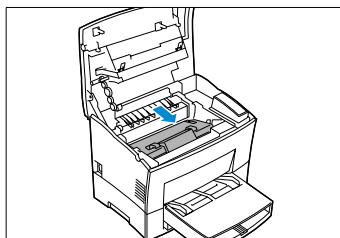
- Move the bottom edge of the paper so that you can grab it with your fingers.



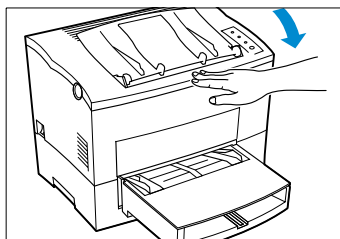
- 7 Re-insert the imaging cartridge.



- 8 Move the imaging cartridge in the direction shown by the arrow until it clips into place.

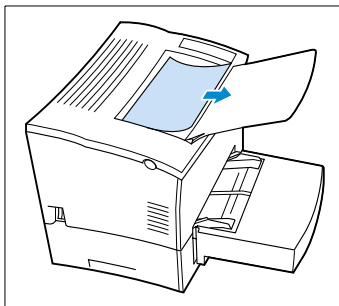


- 9 Close the printer cover and open the paper output tray.

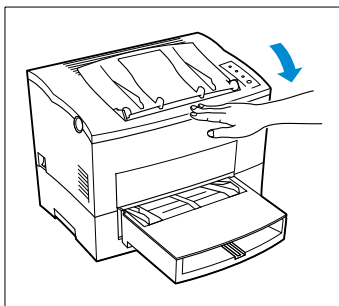


Clearing a paper misfeed at the output tray

- 1 Carefully pull the misfed sheet(s) out of the tray.

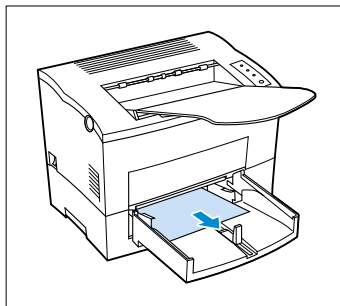


- 2 Open the top cover and close it again in order to reset the printer.

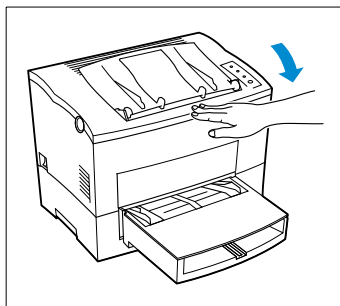


Clearing a paper misfeed at paper feed tray 1

- 1 Carefully pull the misfed sheet(s) out of the tray.

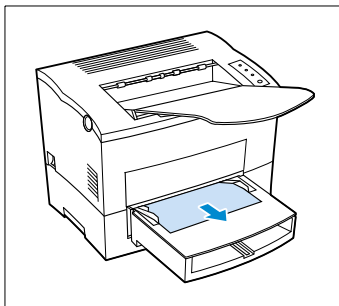


- 2 Open the top cover and close it again in order to reset the printer.

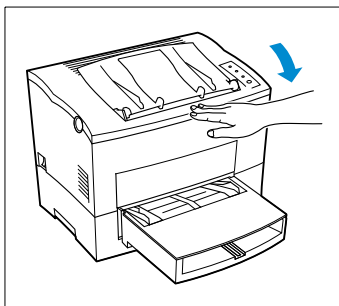


Clearing a paper misfeed at the manual feed unit

- 1 Carefully pull the misfed sheet out of the unit.



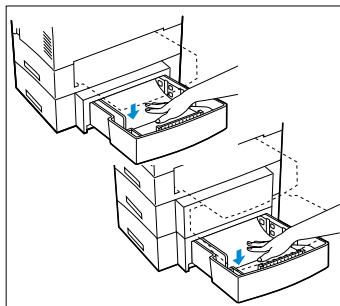
- 2 Open the top cover and close it again in order to reset the printer.



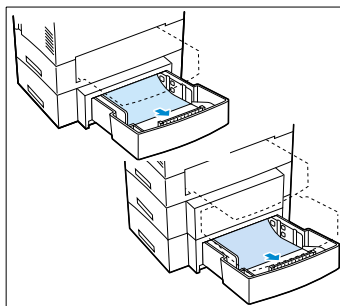
Clearing a paper misfeed at paper feed tray 2 (optional)

- 1** Pull the cassette out of the tray and remove the cover.

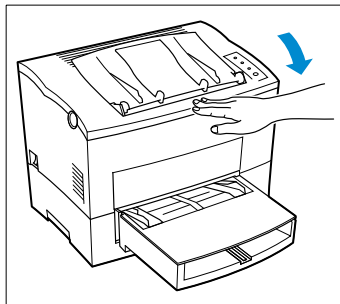
- 2** Press down the stack of paper so that the lifting plate underneath locks in place.



- 3** Remove the stack of paper from the cassette and carefully pull the misfed sheet(s) out of the tray.

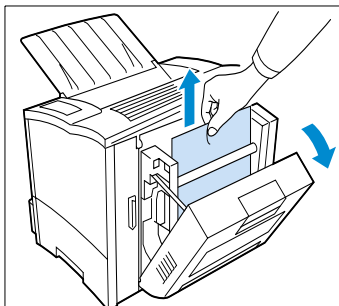


- 4** Open the top cover and close it again in order to reset the printer.

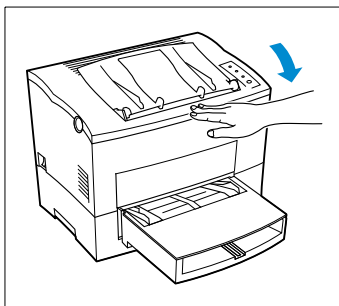


Clearing paper misfeeds at the duplex unit (top)

- 1 Open the cover to the duplex unit and carefully pull out the misfed sheet(s).

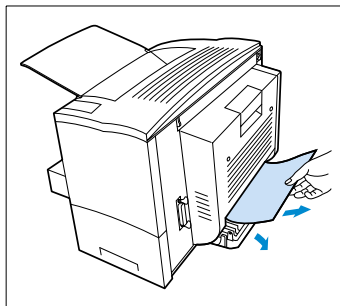


- 2 Open the top cover and close it again in order to reset the printer.

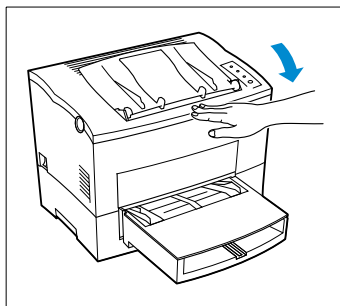


Clearing paper misfeeds at the duplex unit (bottom)

- 1 Open the cover to the duplex unit and carefully pull out the misfed sheet(s).



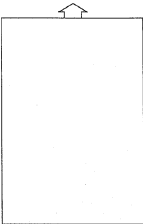

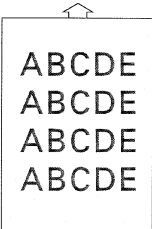
- 2 Open the top cover and close it again in order to reset the printer.

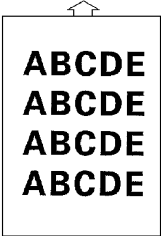
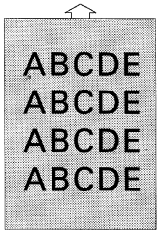
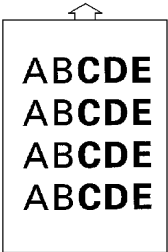


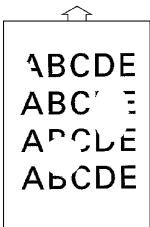
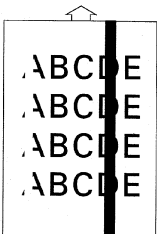
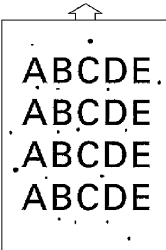
10.2 Problems with print quality

If you are having problems with print quality, follow these steps:

- Remove the imaging cartridge and shake it back and forth carefully to distribute the remaining toner evenly.
- Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.
- Clean the inside of the printer, see page 9-2.
- Deactivate the Toner Save feature in the print menu and try another sample print-out, see page 4-17.

Problem	Possible cause	Action
Blank pages 	The imaging cartridge is empty or damaged.	Remove the imaging cartridge and check it. If necessary, replace it with a new cartridge, see page 9-5.
Black pages 	The imaging cartridge is damaged.	Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.
Print-out is too light 	The Toner Save mode has been activated.	Check the setting in the printer driver and in the printer menu. Change the setting and try it again.
	Insufficient toner in the cartridge.	Lift out the imaging cartridge and shake it in order to improve the distribution of the remaining toner. If the problem persists, fit a new cartridge, see page 9-5.
	The imaging cartridge is damaged.	Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.

Problem	Possible cause	Action
<p><i>Print-out is too dark</i></p> 	<p>The imaging cartridge is damaged.</p>	<p>Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.</p>
<p><i>Blurred background on the print-out</i></p> 	<p>The imaging cartridge is damaged.</p>	<p>Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.</p>
<p><i>Uneven toner density on the print-out</i></p> 	<p>The imaging cartridge is damaged.</p> <p>Insufficient toner in the cartridge.</p>	<p>Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.</p> <p>Lift out the imaging cartridge and shake it in order to improve the distribution of the remaining toner. If the problem persists, fit a new cartridge, see page 9-5.</p>

Problem	Possible cause	Action
Blank spots on the print-out, text missing 	The paper is moist because of high humidity in the air or from being splashed with water.	Print the job again on dry paper.
White or black lines on the print-out 	The imaging cartridge is damaged.	Remove the imaging cartridge and check it for damage. If necessary, fit a new cartridge, see page 9-5.
Toner smudges on the print-out 	The imaging cartridge is damaged.	Remove the imaging cartridge and check it for damage. If necessary, replace it with a new cartridge, see page 9-5.
	Insufficient toner in the cartridge.	Lift out the imaging cartridge and shake it in order to improve the distribution of the remaining toner. If the problem persists, fit a new cartridge, see page 9-5.
	The paper feed roller is dirty.	Clean the paper feed roller, see page 9-2.

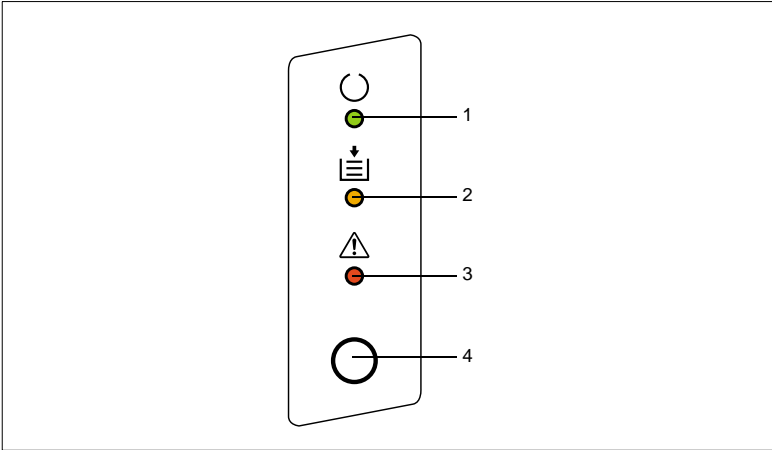
10.3 General printing problems

Problem	Possible cause	Action
No output	The printer is not connected to the power supply, or the cable is not connected to the printer.	Check the power connection and the interface connection to the printer.
	The printer is not switched on	Switch on the printer.
	You are using the wrong type of interface cable.	Check whether the interface cable type conforms to the specification, see page 11-2.
	The connection settings were not made correctly for your printer.	Check the connection settings of the printer.
	The parallel port on your computer is also being used for other equipment (e. g. scanner, ZIP drive).	Disconnect the other equipment and operate the printer via this port.

10.4 Printer messages

Lamp functions

The lamps on the control panel provide information on the status of the printer.



The control panel has three lamps and one button.


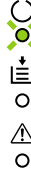

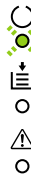



No.	Description	No.	Description
1	Stand-by (green)	3	Fault (red)
2	Paper (orange)	4	Control button

The table below shows the possible states of the lamps.

State	Meaning
⦿	Lamp flashing
⦿	Lamp on permanently
○	Lamp off































Status messages






Status messages indicate the current condition of the printer.

Lamps	Meaning	Lamps	Meaning
	Printer is switched off		Printer is ready for operation
	Printer is switched on and running a self-test		Lamp flashes when printer is: <ul style="list-style-type: none">• receiving data via the parallel interface• processing data• printing
	(slow flashing) Printer is in Power Save mode		Lamp flashes when printer is: <ul style="list-style-type: none">• cancelling a print job• resetting a counter
	Lamp flashes when receiving data from USB-port.		

User messages






These messages indicate faults which need to be rectified by the user before a print job can be continued or the printer switched back to "Stand-by".


Lamps	Meaning	Action
     	Top cover is open.	Close the top cover.
	The cover to the duplex unit is open.	Close the cover to the duplex unit.
     	Print job is too large, insufficient memory capacity.	Press the control button to eject the sheet already fed in.
		<p>If the "Auto continue" function has been activated in the printer tools, then the sheet already fed in is automatically ejected after a predetermined time, see page 5-7.</p> <p>Expand the printer's memory capacity (SIMM) or reduce the size of the print job.</p>
     	A paper format different to the one set in the printer driver has been fed into the printer.	Load paper with the format set in the printer driver into the paper feed tray.
		If the "Auto continue" function has been activated in the printer tools, then printing continues automatically on the sheet already fed in after a predetermined time, see page 5-7.
     	No paper in manual feed unit	Place a sheet in the manual feed unit and press the control button.
     	No paper in feed tray selected in printer driver.	Load paper into the appropriate feed tray.

Lamps	Meaning	Action
	Paper misfeed	Clear the misfeed, see page 10-2, and then continue with the print job.
	No paper in feed tray.	Load paper into the appropriate feed tray.
	There is not enough toner in the imaging cartridge.	Prepare a new imaging cartridge for use, see page 9-5.
	There is no toner in the imaging cartridge.	Replace the imaging cartridge, see page 9-5.
	Paper feed tray 2/3 has not been installed.	Hold down the control button.
	The network interface is not ready.	Hold down the control button. If the problem persists, then the network interface has been deactivated or damaged. Please contact your technical customer service centre.

Service messages

These messages indicate more serious faults that can only be rectified by a customer service engineer.

Lamps	Meaning	Action
	System error or fault	Switch the printer off and then on again. If the problem persists, contact your technical customer service centre.
	System error or fault	
	Fusing unit fault	
	Polygon mirror fault	
	Fan fault	

Lamps	Meaning	Action
	System error or fault	Switch the printer off and then on again. If the problem persists, contact your technical customer service centre.

11 Appendix

11.1 Performance features

Hardware

In terms of hardware, the PagePro 4100E offers you:

- PCL 6 emulation,
- 1200 x 600 dpi print quality with Fine-ART,
- 66 MHz RISC processor,
- 8 MB RAM as standard,
- up to 18 ppm (A4/Letter),
- parallel port
- USB port
- upgrade with Adobe PostScript 3 SIMM module,
- upgrade with network card.

Software

In terms of software, the PagePro 4100E offers you:

- special functions like multiple document pages per print page,
- browser-based PageScope printer management tool for simple network operation.

Operating system

The PagePro 4100E can be used with the following operating systems:

- Windows 95,
- Windows 98,
- Windows 3.1x,
- Windows NT 4.0,
- MS-DOS 6.2 and higher (except MS-DOS 7.0)
- Macintosh (with an optional PostScript ROM-SIMM and an optional network card).

11.2 Technical specification

PagePro 4100E printer

Technical specification	
Type	Desktop laser printer
Print system	Electrostatic dry powder imaging system
Exposure system	Laser diode + polygon mirror scanning
Resolution	1200 dpi × 600 dpi, 600 dpi × 600 dpi (with Fine-ART)
Emulation	PCL 6
Printing speed (single-sided)	18 ppm (A4 or Letter)
Printing speed (double-sided)	5 ppm (A4 or Letter)
Time to 1st page (single-sided)	18 s (A4 or Letter)
Time to 1st page (double-sided)	29 s (A4 or Letter)
Warm-up time	max. 23 s
Paper formats	A4, A5, JIS B5, Letter, Legal, Executive, Commercial 10, Monarch, DL, C5 and B5 envelopes, custom formats (width: 3-1/2 in. to 8-1/2 in. / 88,9 to 216 mm, length: 6 in. to 14 in. / 152,4 to 356 mm)
Paper/Media	<ul style="list-style-type: none"> • Plain paper (16 to 24 lbs. / 60 to 90 g/m²) • Recycled paper (16 to 24 lbs. / 60 to 90 g/m²) • OHP film • Envelopes • Card and thick paper (24 to 43-1/4 lbs. / 90 to 163 g/m²) • Letterhead • Labels • Postcards
Paper sources	<ul style="list-style-type: none"> • Paper feed tray 1 (multipurpose tray) • Manual feed unit • Paper feed tray 2 (option) • Paper feed tray 3 (option)
Input capacities	<ul style="list-style-type: none"> • Paper feed tray 1 (multipurpose tray): 150 sheets • Paper feed tray 2: 500 sheets • Paper feed tray 3: 500 sheets
Output capacity	<ul style="list-style-type: none"> • Output tray (printed side down): 100 sheets
Operating temperature	50°F to 95°F / 10 to 35°C (fluctuations 18°F / 10°C per hour)
Humidity	15 to 85% (fluctuations max. 20% per hour)
Toner cartridge life	9000 pages A4 or Letter with a back-to-white ratio of max. 5%. (The starter imaging cartridge supplied with the printer is capable of producing approx. 5000 pages A4 or Letter.)
Voltage supply	120-127V / 220-240 V at 50-60 Hz

Technical specification	
Current consumption	<ul style="list-style-type: none"> • Operation: max. 820 W • Stand-by: max. 60 W • Power Save mode: max. 30 W
Amperage	max. 7.0 A (120 V) / 3.5 A (230 V)
Dimensions (without paper feed tray 2)	Height: 13 in. / 330 mm Width: 17-5/32 in. / 436 mm Depth: 20 in. / 510 mm
Weight	Printer: Approximately 28-3/4 lbs. / 13 kg Imaging cartridge: Approximately 3-1/4 lbs. / 1.5 kg
Interfaces	<ul style="list-style-type: none"> • Centronics parallel port IEEE 1284B/ECP
Processor	Power PC 401/66 MHz
RAM	8 MB (can be expanded to 104 MB)
Options	<ul style="list-style-type: none"> • Paper feed tray 2 (500 sheets) • Paper feed tray 3 (500 sheets) • Duplex unit • Network card • Memory expansion (SIMM) • PostScript ROM-SIMM

500-sheet paper feed tray (option)

Technical specification	
Paper cassette	Standard cassette: Letter Options: A4, JIS B5, Legal, Executive
Paper	<ul style="list-style-type: none"> • Plain paper (16 to 24 lbs. / 60 to 90 g/m²) • Recycled paper (16 to 24 lbs. / 60 to 90 g/m²)
Paper feeding system	One-way system (multi-feed tray)
Capacity	max. 500 sheets (plain or recycled paper)
Dimensions	Height: 4-3/4 in. / 121 mm Width: 17-1/4 in. / 440 mm Depth: 13-3/4 in. / 350 mm
Weight	approximately 10 lbs. / 4.5 kg not including the legal cassette (Tray)

Duplex unit (option)

Technical specification	
Paper feeding system	One-way system
Paper	<ul style="list-style-type: none"> Plain paper (16 to 24 lbs. / 60 to 90 g/m²) Recycled paper (16 to 24 lbs. / 60 to 90 g/m²)
Operating temperature	50°F to 95°F / 10°C to 35°C
Humidity	15 to 85%
Dimensions	Height: 10-3/4 in. / 275 mm Width: 12-3/4 in. / 320 mm Depth: 6 in. / 152 mm
Weight	Approximately 5 lbs. / 2.3 kg

Network card (option)

Technical specification	
Type	Ethernet
Version	<ul style="list-style-type: none"> 10BaseT/100BaseTX 10BaseT/10Base2 Token Ring

SDRAM-SIMM memory module (option)

Technical specification	
Capacity	8, 16 and 32 MB
Type of function	Burst Mode
Access speed	60 ns or less
No. of pins	72
Type of module	SIMM (Single In-line Memory Module)

Interfaces and cables

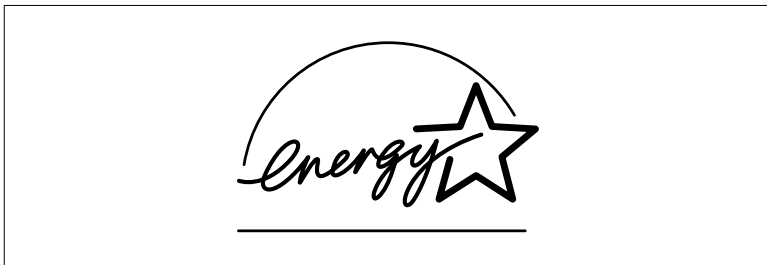
Technical specification	
Connections	Printer: parallel 36-pin connection Computer: EIA 25-pin connection
Type of cable	Shielded Signal and ground pairs must be twisted
Parallel cable	IEEE 1284, type B
Length of cable	max. 10 feet / 3 meters

USB interface and cable

Technical specification	
Connections	Printer: Series B connection Computer: Series A connection
Type of cable	Shielded Signal and ground pairs must be twisted
Parallel cable	IEEE 1284, type B
Pin allocation	1: V _{BUS} 2: D+ 3: D- 4: GND Shell: Shield
Length of cable	max. 5 meters

11.3 Minolta/QMS's concern for environmental protection

What does the energy star mean?



Laser printers with the Energy Star[®] feature switch into a state with low power consumption if they have not been used for a certain amount of time. This function can reduce your annual electricity costs by up to 60%.

This laser printer fulfils the energy efficiency criteria for the Energy Star[®] of the EPA (US Environmental Protection Agency).

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